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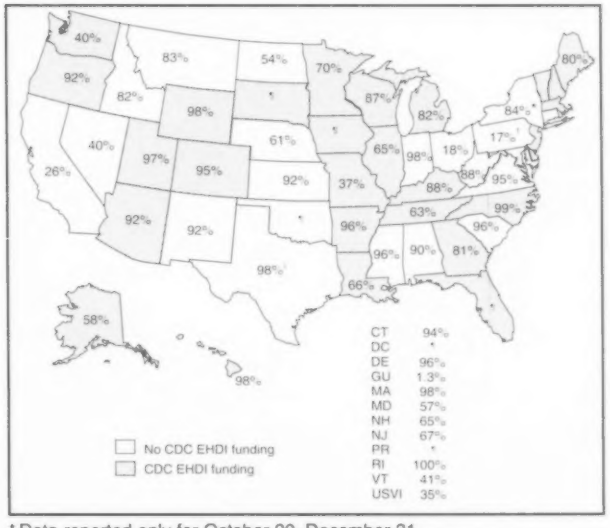
Infants Tested for Hearing Loss — United States, 1999–2001

Hearing loss (HL) occurs in one to three of 1,000 live births annually (*1,2*) and, when left undetected, can result in developmental delays (*3,4*). To promote communication from birth, Early Hearing Detection and Intervention (EHDI) programs support early identification of infants with HL. Without EHDI programs, the average age of identification for HL is age 1.5–3.0 years (*2,5,6*), which is past the start of the critical period for optimal language acquisition (*7,8*). In 2001, a total of 48 states/areas with EHDI tracking and surveillance systems (30 funded by CDC) reported the percentage of newborns screened for HL (Figure). This report summarizes the results of an analysis of surveillance data for 1999–2001, which indicate that more infants were screened for HL, received diagnostic audiologic evaluations, and were enrolled in early intervention services in 2001 than in 1999 and 2000. Continued development of EHDI surveillance systems should assist states/areas in providing needed services to children with HL.

Benchmarks for the key components of the EHDI process include hearing screening before age 1 month, diagnostic audiologic evaluation before age 3 months for infants who do not pass the screening, and enrollment of infants identified with HL in early intervention services before age 6 months. These benchmarks form the basis of the "1-3-6" plan that state/area EHDI programs are implementing. States/areas with EHDI programs are collecting data on the numbers of infants screened, evaluated, and enrolled in intervention services. In collaboration with Directors of Speech and Hearing Programs in State Health and Welfare Agencies, CDC requested data for 1999–2001 from the 50 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands. Responses were received from 22 states/areas in 1999, from 46 in 2000, and from 52 in 2001.

FIGURE. Percentage of newborns screened for hearing loss through Early Hearing Detection and Intervention (EHDI) programs, by state/area and funding status — United States, 2001



* Data reported only for October 20–December 31.
† Data reported only from a pilot project of 26 hospitals.
§ Data reported only for June–December.
¶ Screening rate unknown.

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In 1999, a total of 726 (49%) hospitals and birthing centers in the 22 reporting states/areas were classified as universal newborn hearing screening (UNHS) facilities (i.e., facilities in which the majority of infants were screened). The percentage of infants screened needed to achieve UNHS classification varied. The 22 states/areas reported that 660,639 (46.1%; range: 7.3%–99.8%) of 1,433,780 newborns were screened for HL (Table). In addition, 12 jurisdictions reported referral rates (i.e., percentage of screened newborns referred for audiologic evaluation). An average of 4.0% (range: 0.2%–14.5%) of screened infants were reported to have been referred for audiologic evaluation; eight states/areas reported that 4,221 (51.8%; range: 1.3%–75.5%) of 8,145 referred infants received an audiologic evaluation.

In 2000, a total of 46 states/areas reported that 1,976 (59.7%) of 3,312 hospitals and birthing centers were classified as UNHS facilities, and 44 reported that 1,496,014 (52.1%; range: 10.9%–99.9%) of 2,872,869 newborns were screened for HL (Table). In 2001, a total of 52 states/areas reported that 2,656 (73.2%) of 3,628 hospitals and birthing centers were classified as UNHS facilities, 48 reported that 2,115,869 (65.4%; (range: 1.3%–99.8%) of 3,232,914 newborns were screened for HL, 40 reported an average referral rate of 2.1% (range: 0.4%–11.5%), and 27 reported that 11,901 (55.7%; range: 3.2%–100%) of 21,377 newborns referred for screening received an audiologic evaluation (Table).

In the 21 states/areas that reported screening data for both 1999 and 2001, the number of newborns who received a hearing screening during this period increased by an estimated 35%. For the 10 states/areas that reported data on infants referred for audiologic evaluation for 1999 and 2001, referral rates were low*, decreasing from 4.0% in 1999 to 2.0% in 2001. These rates are consistent with the National EHDI and Joint Committee on Infant Hearing goal of referring ≤4.0% (objective nos. 1.7 [*9*] and 5[a]2 [*10*]) of children tested. Eight states/areas reported audiologic evaluation data in both 1999 and 2001; the number of infants receiving an evaluation increased by approximately 9% during this period.

For 1999, five states/areas reported that 179 infants were identified with HL; 108 (60.3%) were enrolled in early intervention programs by age 6 months. In 2001, 25 states/areas reported that 1,354 infants were identified with HL; 879 (64.9%) were enrolled in early intervention programs. Of these 879 enrolled infants, 627 (71.3%) reportedly were enrolled by age 6 months.

* Low referral rates are an indication that screenings are being performed correctly and are important in maintaining both public and professional confidence in the accuracy of screening results.

TABLE. Number and percentage of infants screened, referred, and evaluated for hearing loss, by state/area and birth year — United States, 1999–2001

State/Area	1999						2000						2001					
	Screened		Referred		Evaluated		Screened		Referred		Evaluated		Screened		Referred		Evaluated	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Alabama	—	—	—	—	—	—	45,403	(74.3)	—	—	—	—	54,000	(90.0)	800	(1.5)	650	(81.3)
Alaska	—	—	—	—	—	—	4,279	(43.2)	68	(1.6)	19	(27.9)	5,710	(57.9)	39	(0.7)	35	(89.7)
Arizona	73,035	(90.7)	—	—	—	—	78,034	(90.3)	780	(1.0)	—	—	78,475	(91.7)	—	—	—	—
Arkansas	20,109	(57.1)	1,781	(8.9)	—	—	25,041	(68.8)	71	(0.3)	—	—	34,809	(95.9)	87	(0.2)	57	(65.5)
California	—	—	—	—	—	—	70,045	(13.5)	91	(0.1)	62	(68.1)	137,871	(26.1)	504	(0.4)	257	(51.0)
Colorado	55,324	(87.0)	128	(0.2)	86	(67.2)	59,230	(89.9)	110	(0.2)	92	(83.6)	61,733	(94.7)	400	(0.6)	300	(75.0)
Connecticut	—	—	—	—	—	—	18,541	(96.2)	274	(1.5)	253	(92.3)	40,646	(94.2)	571	(1.4)	126	(22.1)
Delaware	—	—	—	—	—	—	10,120	(90.2)	257	(2.5)	110	(42.8)	10,967	(96.3)	12	(0.1)	10	(83.3)
District of Columbia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Florida	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Georgia	40,474	(33.1)	—	—	—	—	64,786	(49.8)	—	—	—	—	108,156	(80.8)	—	—	—	—
Guam	—	—	—	—	—	—	—	—	—	—	—	—	52	(1.3)	6	(11.5)	1	(16.7)
Hawaii	16,841	(98.5)	176	(1.0)	112	(63.6)	16,332	(92.8)	168	(1.0)	155	(92.3)	16,408	(98.3)	166	(1.0)	131	(78.9)
Idaho	—	—	—	—	—	—	7,992	(40.2)	65	(0.8)	26	(40.0)	16,798	(82.3)	53	(0.3)	—	—
Illinois	—	—	—	—	—	—	62,345	(34.1)	3,072	(4.9)	—	—	119,269	(64.5)	5,173	(4.3)	—	—
Indiana	—	—	—	—	—	—	33,537	(97.0)	467	(1.4)	—	—	78,591	(97.9)	1,142	(1.5)	620	(54.3)
Iowa	17,411	(46.5)	731	(4.2)	—	—	34,803	(91.2)	—	—	—	—	—	—	—	—	—	—
Kansas	—	—	—	—	—	—	34,917	(89.0)	—	—	—	—	35,927	(92.0)	—	—	—	—
Kentucky	31,247	(62.5)	4,538	(14.5)	3,426	(75.5)	42,623	(84.4)	5,324	(12.3)	2,169	(40.7)	45,851	(88.2)	1,389	(3.0)	344	(24.8)
Louisiana	—	—	—	—	—	—	36,428	(54.5)	3,602	(9.9)	—	—	42,842	(65.7)	2,464	(5.8)	—	—
Maine	5,222	(39.0)	—	—	—	—	12,028	(89.3)	—	—	—	—	10,821	(79.6)	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—	42,262	(56.9)	308	(0.7)	—	—
Massachusetts	—	—	—	—	—	—	80,098	(99.7)	—	—	—	—	79,491	(98.3)	1,336	(1.7)	—	—
Michigan	64,650	(49.2)	—	—	—	—	90,945	(67.8)	2,957	(3.3)	2,005	(67.8)	107,827	(81.6)	3,594	(3.3)	1,564	(43.5)
Minnesota	36,347	(58.0)	—	—	—	—	44,045	(65.0)	—	—	—	—	46,631	(70.0)	—	—	—	—
Mississippi	39,481	(94.9)	649	(1.6)	189	(29.1)	—	—	—	—	—	—	40,599	(96.0)	400	(1.0)	244	(61.0)
Missouri	—	—	—	—	—	—	8,500	(10.9)	36	(0.4)	—	—	28,152	(37.4)	—	—	—	—
Montana	6,165	(60.3)	209	(3.4)	—	—	8,459	(77.4)	334	(3.9)	—	—	9,111	(83.3)	127	(1.4)	—	—
Nebraska	6,334	(26.3)	457	(7.2)	6	(1.3)	8,978	(36.2)	164	(1.8)	263*	(160.4)	15,272	(60.9)	661	(4.3)	486	(73.5)
Nevada	—	—	—	—	—	—	—	—	—	—	—	—	12,518	(40.0)	375	(3.0)	—	—
New Hampshire	—	—	—	—	—	—	5,280	(37.7)	—	—	—	—	9,187	(65.4)	86	(0.9)	—	—
New Jersey	46,179	(40.9)	2,873	(6.2)	—	—	58,500	(52.3)	2,983	(5.1)	—	—	75,187	(67.1)	—	—	—	—
New Mexico	—	—	—	—	—	—	21,450	(79.9)	1,300	(6.1)	—	—	25,228	(92.0)	1,300	(5.2)	—	—
New York	58,825	(22.6)	—	—	—	—	—	—	—	—	—	—	38,887†	(84.3)	226†	—	—	—
North Carolina	—	—	—	—	—	—	85,964	(71.5)	590	(0.7)	84	(14.2)	117,911	(99.3)	3,843	(3.3)	2,860	(74.4)
North Dakota	3,397	(38.3)	—	—	—	—	3,693	(41.7)	167	(4.5)	—	—	4,779	(54.1)	14	(0.3)	9	(64.3)
Ohio	—	—	—	—	—	—	21,151	(14.1)	714	(3.4)	—	—	26,645	(17.6)	1,193	(4.5)	38	(3.2)
Oklahoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oregon	12,800	(27.8)	—	—	—	—	42,826	(96.5)	1,151	(2.7)	397	(34.5)	42,020	(91.5)	831	(2.0)	359	(43.2)
Pennsylvania	—	—	—	—	—	—	70,077	(48.4)	1,167	(1.7)	992	(85.0)	24,128§	(16.8)	124§	(0.5)	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	13,191	(99.8)	32	(0.2)	11	(34.4)	13,161	(99.9)	33	(0.3)	24	(72.7)	13,288	(99.8)	51	(0.4)	41	(80.4)
South Carolina	—	—	—	—	—	—	16,744	(81.9)	398	(2.4)	218	(54.8)	26,241	(96.3)	710	(2.7)	489	(68.9)
South Dakota	—	—	—	—	—	—	6,937	(65.5)	—	—	—	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	48,582	(61.8)	—	—	—	—	52,980	(63.4)	1,960	(3.7)	—	—
Texas	—	—	—	—	—	—	—	—	—	—	—	—	121,168¶	(97.5)	428¶	(0.4)	186	(43.5)
U.S. Virgin Islands	—	—	—	—	—	—	947	(53.4)	16	(1.7)	16	(100.0)	620	(35.0)	30	(4.8)	30	(100.0)
Utah	43,581	(92.2)	358	(0.8)	160	(44.7)	46,579	(96.1)	440	(0.9)	163	(37.0)	47,318	(96.5)	621	(1.3)	320	(51.5)
Virginia	45,091	(48.3)	1,807	(4.0)	231	(12.8)	80,890	(83.6)	3,194	(3.9)	2,370	(74.2)	91,849	(95.1)	3,472	(3.8)	2,459	(70.8)
Vermont	—	—	—	—	—	—	1,361	(21.7)	1	(0.1)	1	(100.0)	2,546	(41.4)	1	<0.1	1	(100.0)
Washington	5,811	(7.3)	—	—	—	—	18,212	(22.5)	—	—	—	—	31,662	(40.0)	—	—	—	—
Wisconsin	19,124	(28.1)	—	—	—	—	40,906	(58.0)	769	(1.9)	571	(74.3)	59,425	(87.4)	1,385	(2.3)	—	—
West Virginia	—	—	—	—	—	—	9,675	(48.4)	700	(7.2)	125	(17.9)	18,446	(87.8)	400	(2.2)	272	(68.0)
Wyoming	—	—	—	—	—	—	5,570	(96.5)	10	(0.2)	9	(90.0)	5,565	(97.7)	12	(0.2)	12	(100.0)
Total	**660,639**	**(46.1)**	**13,739**	**(4.0)**	**4,221**	**(51.8)**	**1,496,014**	**(52.1)**	**31,473**	**(2.9)**	**10,124**	**(56.3)**	**2,115,869**	**(65.4)**	**36,294**	**(2.1)**	**11,901**	**(55.7)**

* On the basis of reports submitted by audiologists on the number of infants receiving audiologic evaluations.
† Data only for October 20–December 31, 2001.
§ Data only from a screening pilot project of 26 birthing hospitals in 2001.
¶ Data only for June–December 2001.

Reported by: *M Gaffney, M Gamble, MPH, P Costa, MS, J Holstrum, PhD, C Boyle, PhD, Div of Human Development and Disability, National Center on Birth Defects and Developmental Disabilities, CDC.*

Editorial Note: In 2001, approximately three times as many infants were reported to have been screened for HL and to have received audiologic evaluations than were reported in 1999. However, the number of infants evaluated and enrolled in intervention services was low. In 2001, nearly half of the infants referred for audiologic evaluation reportedly did not receive an audiologic evaluation, and approximately one third of infants identified with HL were not reported to be enrolled in intervention services. Although this finding is attributable in part to loss to follow-up and differing reporting requirements, the data indicate the need to strengthen EHDI programs. Continuing to develop tracking and surveillance systems, ensuring that such systems are linked to diagnostic and intervention services, including medical home, and implementing consistent methods for reporting by health-care providers should enable states/areas to capture EHDI-related data for all newborns.

The variation in reported rates is attributable to several factors. States/areas began implementing EHDI programs at different times. Certain states/areas have mandated screening, but requirements vary. Although 22 states/areas indicated that newborn hearing screening legislation was passed or implemented by 2000, not all require reporting of data to the respective EHDI program. In addition, in 20 (40%) of 50 states/areas reporting in 2001, ≥10% of hospitals and birthing facilities were not designated as UNHS facilities, which affected the number of children screened. The reasons for not screening all newborns include financial constraints and policy issues (e.g., hospitals with fewer annual births not being required to screen). In addition, large annual birth populations, geographic barriers, and differing eligibility requirements for receiving services might affect the ability to provide EHDI-related services.

The findings in this report are subject to at least five limitations. First, certain states/areas (31 in 1999, seven in 2000, and two in 2001) did not have the requested data or did not respond. Second, some states/areas that reported data were unable to determine if infants had been screened or evaluated before the recommended age intervals. Third, three states/areas in 2001 were able to report only partial data or data from a limited number of hospitals. Fourth, data for the 3 reporting years were too limited to report the age of identification, severity of HL, or whether the HL was detected in one or both ears. Finally, although states/areas were requested to provide actual data, some might have submitted estimates.

The findings in this report underscore the need for EHDI programs to ensure that infants with HL are detected rapidly and enrolled in early intervention services. Surveillance data can help in assessing polices and procedures and ensuring that infants with HL are identified as early as possible and enrolled in appropriate intervention programs. These activities will help children with HL develop communication skills commensurate with their cognitive abilities.

Acknowledgments

This report is based on data provided by Directors of Speech and Hearing Programs in State and Health Welfare Agencies in Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Guam, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, U.S. Virgin Islands, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

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trust•wor•thy: *adj*

('trəst-"wər-thē) 1 : worthy of belief

2 : capable of being depended upon;

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Prevalence of IgG Antibody to SARS-Associated Coronavirus in Animal Traders — Guangdong Province, China, 2003

Severe acute respiratory syndrome (SARS) was identified in 2003 as an infectious disease caused by the SARS-associated coronavirus (SARS-CoV), a member of the coronavirus family not observed previously in humans (*1,2*). Because its sequence data differ from that of known human coronaviruses, SARS-CoV is suspected to have crossed the species barrier between an animal host and humans. The SARS outbreak began in China's Guangdong Province, where approximately 1,500 probable cases were identified during November 2002–June 2003 (*3*). Detection of SARS-like coronavirus has been reported previously in masked palm civets (sometimes called civet cats) and a raccoon dog for sale in a live animal market in Shenzhen municipality (*4*). This report summarizes results of an investigation conducted by public health authorities in Guangdong Province, which compared the seroprevalence of SARS-CoV IgG antibody in animal traders (i.e., workers in live animal markets) with that of persons in control groups. The results indicated that 13% of the animal traders, none of whom had SARS diagnosed, had IgG antibody to SARS-CoV, compared with 1%–3% of persons in three control groups. Although the results provide indirect support for the hypothesis of an animal origin for SARS, they also underscore the need for detailed patient histories and more focused animal studies to confirm an animal origin for SARS.

The seroprevalence study was conducted by the Guangdong Center for Disease Control and Prevention (CDC) in conjunction with the Guangzhou CDC, Baiyun District CDC, and Shijing Township Hospital. Traders in three animal markets in Guangzhou, Guangdong Province, were offered participation in the study, and samples were collected on May 4, 2003, from those who gave consent. The trader test results were compared with those for persons in three control groups: 1) health-care workers involved with SARS control in two city hospitals, 2) public health workers in the Guangdong CDC facility, and 3) healthy adults visiting a clinic for routine physical examinations. Compared with the overall control population, the animal traders were more likely to be male and older; the majority of persons in both the trader and control groups were aged 20–39 years. A sample of blood (5 mL) was drawn from each subject, and IgG antibody to SARS-CoV was tested by enzyme-linked immunosorbent assay (ELISA) by using the test kit (batch no. 20030501) manufactured by Beijing Huada GBI Biotechnology Co. Ltd., Beijing.

Of 792 persons tested, IgG antibody to SARS-CoV was detected in 72 (9.1%). Positive rates were highest in the trader group (13.0%), compared with the three control groups (range: 1.2%–2.9%) (Table 1). The prevalence of IgG antibody in the trader group was statistically significantly higher than that of the overall control population (chi square = 26.1; $p<0.01$). In contrast, no statistically significant difference was determined in the prevalence of antibody detected among the three control groups (chi square = 0.89; $p = 0.64$).

Among animal traders, the highest prevalence of antibody was found among those who traded primarily masked palm civets (72.7%), wild boars (57.1%), muntjac deer (56.3%), hares (46.2%), and pheasant (33.3%) (Table 2). The prevalence of traders with IgG antibody to SARS-CoV varied by market (6%, 11%, and 20%, respectively; $p<0.001$); no correlation was found between SARS-CoV antibody and sex, age, or number of years worked in a live animal market. None of the subjects had SARS or atypical pneumonia diagnosed during the Guangdong Province outbreak.

Reported by: *D Yu, MD, H Li, R Xu, MPH, J He, J Lin, L Li, W Li, H Xu, S Huang, J Huang, Guangdong Center for Disease Control, Guangzhou, China.*

Editorial Note: This study found serologic evidence suggesting that asymptomatic infection with SARS-CoV or an anti-

TABLE 1. Prevalence of IgG antibody to SARS-associated coronavirus in animal traders and persons in three control groups — Guangdong Province, China, 2003

Group	No. tested	Testing positive	
		No.	(%)
Animal traders	508	66	(13.0)*
Hospital workers	137	4	(2.9)
Guangdong CDC† workers	63	1	(1.6)
Healthy adults at clinic	84	1	(1.2)

* Chi square = 26.1; $p<0.01$, animal traders versus other groups.
† Center for Disease Control and Prevention.

TABLE 2. Prevalence of IgG antibody to SARS-associated coronavirus in selected animal traders, by primary animal traded — Guangdong Province, China, 2003

Primary animal traded*	No. traders	Testing positive		Relative risk	(95% CI†)
		No.	(%)		
Masked palm civet	22	16	(72.7)	7.9	(5.0–12.6)
Wild boar	28	16	(57.1)	6.2	(3.8–10.3)
Muntjac deer	16	9	(56.3)	6.1	(3.4–10.9)
Hare	13	6	(46.2)	5.0	(2.5–10.2)
Pheasant	9	3	(33.3)	4.9	(0.7–24.8)§
Cat	43	8	(18.6)	2.0	(1.0–4.2)
Other fowl	25	3	(12.0)	1.3	(0.2–5.0)§
Snake	250	23	(9.2)	Reference group	

* Categories not mutually exclusive, except for snakes.
† Confidence interval.
§ Odds ratio and 95% CI by Fisher exact test.

genically related virus occurred in Guangdong Province. Seroprevalence of IgG antibody to SARS-CoV was substantially higher among traders of live animals than among persons in control groups, consistent with the hypothesis that SARS-CoV crossed the species barrier from animals to humans. The results are consistent with preliminary determinations of a joint research team from China's Ministry of Agriculture and Guangdong Province, which found that sequences of coronavirus detected by polymerase chain reaction in bats, monkeys, masked palm civets, and snakes were identical to or similar to those of human SARS-CoV isolates. In addition, a joint study by Shenzhen CDC and Hong Kong University determined that the sequence of coronavirus isolated from masked palm civets is 99% identical to human SARS-CoV (*4*). These determinations appear consistent with the hypothesis that an animal reservoir exists for SARS-CoV or an antigenically related virus; however, the findings are not sufficient to identify either the natural reservoir for SARS-CoV or the animal(s) responsible for crossover to humans.

Primary modes of SARS transmission probably are direct contact or droplet spread from a patient symptomatic with SARS; however, other routes of transmission might exist (*5*). Approximately 63% of Guangdong Province patients with clinically defined SARS had no known history of exposure to other SARS patients, and the percentage increased after April 2003 (*6*). This trend of unknown exposure also was observed in other areas (*7*). Therefore, the possibility of unrecognized sources of infection or infection from asymptomatic carriers of the virus cannot be excluded, although some patients might also have pneumonia caused by etiologies other than SARS-CoV.

The findings in this report are subject to at least four limitations. First, although subjects were categorized as primarily traders of the animals they were selling at the time of the survey, a substantial portion traded or handled more than one type of animal. Second, the small number of subjects with reported exposure to certain types of animals limits the ability to differentiate risk among specific groups of animal traders. Third, although the animal traders worked at three markets in Guangzhou, risk might differ among traders in other parts of Guangdong Province or elsewhere in China. Finally, as with other urgently developed tests, validation of the ELISA kit employed has not been completed, and the IgG antibody cannot distinguish recent from remote infection.

This report provides indirect support for the hypothesis that SARS-CoV might have originated from an animal source and identifies multiple animals for further study. However, none of the traders in this study had SARS, and only two SARS patients in Guangdong Province were identified as animal traders (i.e., a snake seller and a pigeon seller) (*6*). In contrast, comparative analysis of early Guangdong cases, unlinked to other SARS cases, indicated an overrepresentation of food handlers (*6*). Whether the antibody detected in the animal traders in this report might represent infection with a related coronavirus that cross-reacts with SARS-CoV, or whether that antibody provides protection from SARS, is not known. Efforts to identify a possible animal reservoir for SARS might benefit from prompt attention to collecting detailed histories from any future SARS patients regarding animal and other environmental exposures and initiating tracebacks to animal supply sources (e.g., markets, farms, and wildlife areas).

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Public Health and Aging

Influenza Vaccination Coverage Among Adults Aged ≥50 Years and Pneumococcal Vaccination Coverage Among Adults Aged ≥65 Years — United States, 2002

Vaccination of persons at risk for complications from influenza and pneumococcal disease is a key public health strategy in preventing morbidity and mortality in the United States. During the 1990–1999 influenza seasons, approximately 36,000 deaths were attributed annually to influenza infection,

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with approximately 90% of deaths occurring among adults aged ≥65 years (*1*). In 1998, an estimated 3,400 adults aged ≥65 years died as a result of invasive pneumococcal disease (*2*). One of the national health objectives for 2010 is to achieve 90% coverage of noninstitutionalized adults aged ≥65 years for both influenza and pneumococcal vaccinations (objective no. 14.29) (*3*). In 2000, the Advisory Committee on Immunization Practices (ACIP) broadened the universal recommendations for influenza vaccination to include adults aged 50–64 years in addition to adults aged ≥65 years. To assess progress toward achieving the 2010 national health objective and implementing the ACIP recommendations, CDC analyzed data from the 2002 Behavioral Risk Factor Surveillance System (BRFSS). This report summarizes the results of that analysis, which indicate that influenza and pneumococcal vaccination levels among adults aged ≥65 years and influenza vaccination levels among adults aged 50–64 years varied widely among states/areas and racial/ethnic populations. Innovative approaches are needed to increase vaccination coverage, particularly among certain populations.

BRFSS is a state-based, random-digit–dialed telephone survey of the U.S. civilian, noninstitutionalized population aged ≥18 years. All 50 states, the District of Columbia (DC), and three U.S. territories participate in the survey. Respondents were asked, "During the past 12 months, have you had a flu shot?" and "Have you ever had a pneumonia vaccine?" For the 2002 BRFSS, the median state/area response rate was found to be 58.3% (range: 42.2%–82.6%) by using the CASRO method (*4*). A total of 247,964 persons responded, of whom 59,954 (24.1%) were aged 50–64 years, and 51,082 (20.6%) were aged ≥65 years. Respondents who reported unknown influenza (0.2%) or pneumococcal (2.7%) vaccination status were excluded from the analysis. Overall vaccination levels were estimated for the 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (USVI). Data were weighted by age, sex, and, in certain states/areas, race/ethnicity to reflect the estimated adult population. SUDAAN was used to calculate point estimates and 95% confidence intervals (CIs). Multivariable logistic regression analysis was used to assess factors associated independently with receiving vaccination.

In 2002, of respondents aged ≥65 years, 66.4% (95% CI = 65.6%–67.1%) reported having received influenza vaccine during the preceding 12 months. Vaccination coverage levels ranged from 32.2% (USVI) to 76.6% (Minnesota), with a median of 68.4% (Table 1). Among respondents aged 50–64 years, 36.4% (95% CI = 35.7%–37.1%) reported having received influenza vaccine during the preceding 12 months. Vaccination coverage levels in this age group ranged from 15.9% (Puerto Rico) to 49.0% (South Dakota), with a median of 38.4%. The proportion of respondents aged ≥65

years reporting ever having received pneumococcal vaccine was 61.8% (95% CI = 61.0%–62.6%). Vaccination coverage levels ranged from 25.1% (Puerto Rico) to 72.5% (North Dakota), with a median of 63.0%.

Substantial variation in vaccination coverage by race/ethnicity was observed. For respondents aged ≥65 years, the estimated proportions of influenza and pneumococcal vaccination for non-Hispanic whites (69.0% and 64.8%, respectively) were more than those for non-Hispanic blacks (50.6% and 44.5%, respectively) and Hispanics (54.8% and 44.4%, respectively) (Table 2). Similar patterns were observed for influenza vaccination among adults aged 50–64 years: 37.9% for non-Hispanic whites, 29.8% for non-Hispanic blacks, and 29.7% for Hispanics. These differences were not explained by variations in education level, sex, self-reported health, diabetes status, asthma history, and regular source of health care. Other factors associated independently with higher receipt of influenza and pneumococcal vaccination included having a regular source of health care, having diabetes or asthma, having less than excellent/very good self-reported health, and having an education level higher than high school (Table 3).

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Editorial Note: The findings in this report indicate wide variability in influenza and pneumococcal vaccination coverage across states/areas and marked differences in vaccination coverage by race/ethnicity. Influenza vaccination coverage levels among adults aged 50–64 years were <50% in all reporting areas, substantially lower than levels among adults aged ≥65 years. In addition, both influenza and pneumococcal vaccination levels among adults aged ≥65 years were substantially below the 2010 national health objective of 90% coverage.

Estimates of influenza vaccination coverage among adults aged 50–64 years were low despite the revised ACIP recommendations in 2000. The universal recommendations were broadened to address the prevalence of high-risk medical conditions in adults aged 50–64 years, of whom approximately 29% have one or more chronic medical condition. Age-based strategies for vaccination have been implemented more successfully than patient-selection strategies based on medical conditions (*1*). Efforts are needed to increase awareness of the revised recommendations among health-care providers and the general public. Information regarding the adult immunization schedule is available at http://www.cdc.gov/nip.

Factors predictive of influenza and pneumococcal vaccination were similar, and having a source for regular health care was the factor most associated with receiving either vaccination. After adjustments were made for known potential confounding factors measured by BRFSS (i.e., education level but not direct measures of access to care, which were not available), non-Hispanic whites remained more likely to be vaccinated than non-Hispanic blacks and Hispanics. Strategies for addressing these disparities are being assessed by the Racial and Ethnic Adult Disparities Immunization Initiative (READII) through a 2-year demonstration project (*5*).

Vaccine production for the 2003–04 influenza season is proceeding on schedule, and projected production and distribution schedules will allow for a sufficient supply of influenza vaccine during October–November. Influenza vaccination may proceed for all persons at high risk and healthy persons, individually and through mass campaigns, as soon as vaccine is available and should continue until supplies are depleted. Pneumococcal vaccine should be offered all year to adults aged ≥65 years and other persons at high risk.

The findings in this report are subject to at least three limitations. First, influenza and pneumococcal vaccination status was based on self-report and not validated. The validity of self-reported pneumococcal vaccination is lower than that of influenza vaccination (*6*). Second, the median BRFSS response rate (58.3%) in this survey was low. BRFSS results have been compared with results from the National Health Interview Survey (NHIS), a household-based, face-to-face interview survey with higher response rates. Comparisons show similar trends and subgroup differences; however, BRFSS vaccination estimates are consistently higher than NHIS estimates (*7*). Finally, because the survey is conducted during a 12-month period, questions regarding receipt of influenza vaccination do not reflect a single influenza season.

The variation in influenza and pneumococcal vaccination coverage observed among states/areas suggests that opportunities exist to improve vaccination coverage. Although systems-based approaches (e.g., standing orders) have been effective in increasing vaccination coverage levels, these strategies are not implemented widely (*8,9*). To increase vaccination coverage levels, states/areas should promote these and other evidence-based strategies. Low provider reimbursement might be a barrier to vaccination; however, in 2003, Medicare increased its payment rates by 94% for administering influenza and pneumococcal vaccine (*10*). Influenza vaccination coverage among adults aged ≥65 years has leveled since 1997 (*7*), and unless substantial efforts and innovative approaches are undertaken in collaboration with public, private, and community partners, the 2010 national health objective might not be achieved.

Acknowledgment

This report is based on data contributed by state BRFSS coordinators.

TABLE 1. Percentage of adults aged 50–64 years and adults aged ≥65 years who reported receiving influenza vaccine during the preceding 12 months and percentage of adults aged ≥65 years who reported ever receiving pneumococcal vaccine, by state/area — Behavioral Risk Factor Surveillance System, United States, 2002

State/Area	Influenza vaccine				Pneumococcal vaccine	
	Adults aged 50–64 years		Adults aged >65 years		Adults aged >65 years	
	%	(95% CI*)	%	(95% CI)	%	(95% CI)
Alabama	37.3	(33.5–41.1)	64.8	(60.7–68.8)	58.5	(54.3–62.6)
Alaska	37.5	(31.6–43.5)	69.5	(61.5–77.5)	59.8	(50.3–69.1)
Arizona	36.6	(31.7–41.5)	69.7	(65.4–74.0)	68.0	(63.7–72.3)
Arkansas	39.0	(35.6–42.3)	69.0	(65.7–72.4)	58.7	(55.2–62.3)
California	33.9	(30.3–37.6)	71.5	(67.4–75.7)	66.7	(62.3–71.1)
Colorado	45.3	(41.5–49.0)	73.3	(68.2–77.8)	68.1	(63.4–72.9)
Connecticut	39.9	(36.6–43.2)	71.4	(68.3–74.6)	64.5	(61.1–67.9)
Delaware	44.0	(39.6–48.4)	71.5	(67.4–75.6)	64.3	(60.1–68.5)
District of Columbia	35.1	(30.1–40.1)	58.7	(52.8–64.5)	48.0	(41.9–53.8)
Florida	27.3	(25.6–29.9)	57.0	(54.1–59.8)	57.2	(54.3–60.1)
Georgia	32.6	(29.4–35.9)	59.3	(55.3–63.3)	57.3	(53.2–61.3)
Guam	22.2	(14.0–30.4)	44.1	(27.8–60.4)	27.0	(12.6–41.4)
Hawaii	36.7	(33.2–40.2)	73.9	(70.7–77.0)	59.5	(55.9–63.2)
Idaho	35.6	(32.4–38.8)	65.1	(61.8–68.5)	57.5	(54.0–60.9)
Illinois	33.1	(30.0–36.2)	61.1	(57.5–64.7)	56.7	(53.1–60.3)
Indiana	40.6	(37.7–43.6)	66.3	(63.2–69.5)	61.2	(57.9–64.4)
Iowa	45.1	(41.4–48.9)	73.5	(70.1–76.8)	66.2	(62.5–69.9)
Kansas	41.2	(38.0–44.4)	68.6	(65.3–72.0)	62.1	(58.4–65.8)
Kentucky	38.6	(35.1–42.0)	65.7	(62.7–68.7)	56.6	(53.4–59.8)
Louisiana	28.8	(22.8–31.7)	57.3	(53.8–60.7)	56.3	(52.8–59.7)
Maine	43.6	(39.2–47.9)	73.8	(69.4–78.2)	66.8	(62.0–71.5)
Maryland	39.8	(36.2–43.3)	65.9	(61.6–70.3)	63.4	(58.9–67.9)
Massachusetts	39.2	(36.3–42.1)	72.6	(69.7–75.4)	63.4	(60.3–66.5)
Michigan	32.1	(29.2–35.0)	67.7	(64.5–71.0)	63.0	(59.5–66.3)
Minnesota	43.9	(40.7–47.2)	76.6	(73.7–79.6)	70.4	(67.1–73.7)
Mississippi	35.3	(32.2–38.8)	63.0	(59.3–66.7)	58.9	(55.1–62.7)
Missouri	40.6	(36.6–44.6)	68.7	(64.9–72.4)	60.8	(56.8–62.7)
Montana	42.5	(38.5–46.6)	67.6	(63.5–71.9)	67.3	(63.0–71.5)
Nebraska	44.3	(40.7–47.9)	68.2	(65.2–71.3)	61.3	(58.1–64.4)
Nevada	29.2	(24.8–33.5)	60.3	(54.7–66.0)	65.0	(59.3–70.6)
New Hampshire	38.4	(35.4–41.4)	72.3	(69.1–75.5)	63.8	(60.3–67.3)
New Jersey	35.4	(30.2–40.6)	69.1	(64.4–73.8)	63.1	(58.0–68.3)
New Mexico	38.0	(34.8–41.1)	66.6	(63.3–70.0)	62.7	(59.3–66.2)
New York	37.5	(33.9–41.1)	64.7	(60.8–68.5)	62.4	(58.4–66.5)
North Carolina	39.6	(36.0–43.2)	68.1	(64.5–71.9)	63.0	(59.1–66.8)
North Dakota	39.5	(35.6–43.3)	73.9	(70.1–77.7)	72.5	(68.6–76.4)
Ohio	33.9	(30.4–37.3)	66.6	(62.2–71.1)	63.7	(59.1–68.2)
Oklahoma	44.8	(42.1–47.5)	72.7	(70.3–75.0)	65.5	(62.9–68.1)
Oregon	37.7	(33.9–41.4)	68.0	(64.1–72.0)	65.0	(60.8–69.1)
Pennsylvania	38.3	(36.1–40.5)	70.5	(68.5–72.6)	63.5	(61.3–65.8)
Puerto Rico	15.9	(13.0–18.8)	35.4	(31.4–39.4)	25.1	(21.3–28.9)
Rhode Island	41.4	(37.6–45.1)	73.7	(70.2–77.1)	67.6	(63.9–71.4)
South Carolina	37.3	(33.7–40.9)	69.4	(65.5–73.2)	64.9	(60.8–68.9)
South Dakota	49.0	(45.7–52.2)	74.2	(71.3–77.0)	56.7	(53.5–59.9)
Tennessee	43.0	(39.1–47.0)	71.6	(67.9–75.4)	61.4	(57.3–65.5)
Texas	37.7	(34.4–41.0)	61.0	(57.4–64.6)	56.9	(53.3–60.6)
U.S. Virgin Islands	18.4	(14.5–22.2)	32.2	(25.5–38.9)	30.4	(23.0–37.7)
Utah	40.1	(35.8–44.3)	71.1	(66.6–75.5)	65.0	(60.3–69.6)
Vermont	37.1	(34.0–40.3)	73.6	(70.4–76.8)	66.3	(62.7–69.8)
Virginia	39.9	(35.6–44.1)	65.3	(60.9–69.7)	60.8	(56.2–65.4)
Washington	38.8	(35.3–42.3)	65.1	(61.3–68.8)	63.0	(59.1–66.9)
West Virginia	38.7	(35.1–42.3)	65.8	(62.2–69.4)	61.2	(57.5–64.8)
Wisconsin	38.1	(34.6–41.5)	74.0	(70.6–77.4)	70.6	(66.9–74.1)
Wyoming	40.8	(37.0–44.7)	70.6	(66.8–74.5)	68.2	(64.2–72.2)
Median	*38.4*		*68.4*		*63.0*	
Range	*15.9–49.0*		*32.2–76.6*		*25.1–72.5*	

*Confidence interval.

TABLE 2. Percentage of adults aged 50–64 years and adults aged ≥65 years who reported receiving influenza vaccine during the preceding 12 months and percentage of adults aged ≥65 years who reported ever receiving pneumococcal vaccine, by selected characteristics — Behavioral Risk Factor Surveillance System, United States, 2002

Characteristic	Influenza vaccine				Pneumococcal vaccine	
	Adults aged 50–64 years		Adults aged ≥65 years		Adults aged ≥65 years	
	%	(95% CI*)	%	(95% CI)	%	(95% CI)
Age group (yrs)						
65–74	—	—	61.7	(60.6–62.8)	56.1	(55.0–57.1)
≥75	—	—	72.2	(71.1–73.2)	70.0	(68.9–71.0)
Race/Ethnicity†						
White, non-Hispanic	37.9	(37.2–38.6)	69.0	(68.3–69.7)	64.8	(64.1–65.6)
Black, non-Hispanic	29.8	(27.4–32.3)	50.6	(47.1–54.1)	44.5	(41.0–48.0)
Hispanic	29.7	(26.6–32.9)	54.8	(49.7–59.9)	44.4	(39.1–49.7)
Other	37.6	(33.7–41.4)	61.9	(57.6–66.1)	59.3	(55.0–63.6)
Sex						
Men	34.7	(33.6–35.7)	66.7	(65.5–67.9)	59.8	(58.8–61.1)
Women	38.1	(37.2–39.0)	66.2	(65.2–67.2)	63.1	(62.1–64.1)
Education level						
<High school	29.7	(27.3–32.1)	59.7	(57.8–61.7)	54.6	(52.6–56.6)
High school graduate	34.8	(33.7–36.0)	66.2	(64.9–67.4)	61.9	(60.6–63.1)
>High school	38.6	(37.7–39.5)	69.8	(68.7–70.8)	64.9	(63.8–66.0)
Self-reported health status						
Excellent/Very good	34.4	(33.4–35.4)	63.8	(62.5–65.0)	57.9	(56.6–59.2)
Good	36.6	(35.3–37.9)	67.2	(65.9–68.6)	62.2	(60.8–63.5)
Fair	39.4	(37.4–41.4)	69.3	(67.6–71.0)	64.2	(62.3–66.0)
Poor	45.3	(42.5–48.0)	68.5	(66.0–71.0)	70.5	(68.2–72.9)
Diabetes§						
Yes	51.5	(49.1–53.8)	72.6	(70.4–74.4)	68.3	(66.3–70.3)
No	34.4	(33.7–35.1)	65.2	(64.4–66.0)	60.4	(59.6–61.3)
Asthma¶						
Yes	47.0	(45.0–49.1)	71.4	(68.6–74.1)	74.3	(71.4–77.1)
No	35.1	(34.3–35.8)	65.9	(65.1–66.6)	60.3	(59.5–61.2)
Regular source of health care**						
Yes	38.9	(38.2–39.7)	68.5	(67.7–69.2)	63.7	(62.9–64.4)
No	19.9	(18.1–21.6)	43.2	(39.6–46.8)	40.1	(36.5–43.7)
Total	**36.4**	**(35.7–37.1)**	**66.4**	**(65.6–67.1)**	**61.8**	**(61.0–62.6)**

* Confidence interval.
† Data for racial/ethnic populations other than non-Hispanic whites, non-Hispanic blacks, or Hispanic were combined because, when analyzed separately, data were too small for meaningful analysis.
§ On the basis of response to the question, "Have you ever been told by a doctor that you have diabetes?"
¶ On the basis of response to the question, "Have you ever been told by a doctor, nurse, or other health professional that you had asthma?"
** On the basis of response to the question, "Do you have one person you think of as your personal doctor or health-care provider?"

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TABLE 3. Independent predictors determined by multivariable logistic regression analysis for adults aged 50–64 years and adults aged ≥65 years who reported receiving influenza vaccine during the preceding 12 months and for adults aged ≥65 years who reported ever receiving pneumococcal vaccine, by selected characteristics — Behavioral Risk Factor Surveillance System, United States, 2002

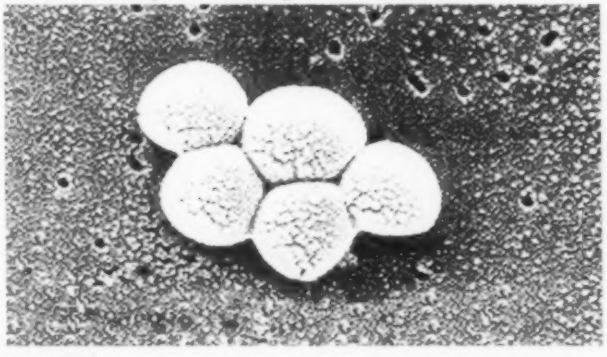
Characteristic	Influenza vaccine				Pneumococcal vaccine	
	Adults aged 50–64 years		Adults aged ≥65 years		Adults aged ≥65 years	
	OR*	(95% CI†)	OR	(95% CI)	OR	(95% CI)
Age group (yrs)						
65–74§	—	—	1.0		1.0	
≥75	—	—	1.6	(1.5–1.7)	1.9	(1.7–2.0)
Race/Ethnicity¶						
White, non-Hispanic§	1.0		1.0		1.0	
Black, non-Hispanic	0.6	(0.5–0.6)	0.5	(0.4–0.5)	0.4	(0.4–0.5)
Hispanic	0.7	(0.6–0.8)	0.6	(0.5–0.7)	0.4	(0.4–0.6)
Other	0.9	(0.8–1.0)	0.8	(0.6–0.9)	0.8	(0.7–1.0)
Sex						
Men§	1.0		1.0		1.0	
Women	1.1	(1.0–1.1)	1.0	(0.9–1.1)	1.1	(1.0–1.2)
Education level						
<High school§	1.0		1.0		1.0	
High school graduate	1.2	(1.1–1.3)	1.2	(1.1–1.3)	1.3	(1.2–1.4)
>High school	1.5	(1.3–1.6)	1.5	(1.4–1.6)	1.6	(1.4–1.7)
Self-reported health						
Excellent/Very good§	1.0		1.0			
Good	1.2	(1.1–1.3)	1.2	(1.1–1.2)	1.2	(1.1–1.3)
Fair	1.4	(1.2–1.5)	1.3	(1.2–1.4)	1.4	(1.3–1.5)
Poor	1.3	(1.1–1.4)	1.3	(1.2–1.5)	1.7	(1.5–2.0)
Diabetes**						
Yes	1.5	(1.3–1.7)	1.7	(1.6–1.9)	1.4	(1.3–1.6)
No§	1.0		1.0		1.0	
Asthma††						
Yes	1.3	(1.1–1.5)	1.4	(1.3–1.5)	1.9	(1.7–2.2)
No§	1.0		1.0		1.0	
Regular source of health care§§						
Yes	2.5	(2.2–3.0)	2.4	(2.2–2.6)	2.3	(2.0–2.7)
No§	1.0		1.0		1.0	

* Odds ratio.
† Confidence interval.
§ Reference level for characteristic.
¶ Data for racial/ethnic populations other than non-Hispanic whites, non-Hispanic blacks, or Hispanic were combined because, when analyzed separately, data were too small for meaningful analysis.
** On the basis of response to the question, "Have you ever been told by a doctor that you have diabetes?"
†† On the basis of response to the question, "Have you ever been told by a doctor, nurse, or other health professional that you had asthma?"
§§ On the basis of response to the question, "Do you have one person you think of as your personal doctor or health-care provider?"

Methicillin-Resistant *Staphylococcus aureus* Infections in Correctional Facilities — Georgia, California, and Texas, 2001–2003

Infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA) (Figure) are common in hospitals and nursing homes. Because MRSA is resistant to all commonly prescribed beta-lactam antibiotics (e.g., penicillins and cephalosporins), these infections require treatment with alternative antimicrobial drugs. In addition, because antimicrobial drugs usually must be selected before identifying MRSA as the cause of infection, treatment presents a challenge for

FIGURE. Scanning electron micrograph of *Staphylococcus aureus*



Photo/CDC

clinicians. MRSA has emerged recently as a more frequent cause of skin and soft tissue infections in the community, particularly in correctional facilities such as prisons, jails, and detention centers (*1–3*). This report summarizes recent investigations of MRSA transmission among inmates of correctional facilities in Georgia, California, and Texas. Inadequate personal hygiene, barriers to medical care, and other factors contributed to transmission. Information from these investigations has been used in the development of recently released Federal Bureau of Prisons guidance for control of MRSA (*4*), which recommends improvements in inmate hygiene, infection control, and targeted antimicrobial treatment.

Case Definition

For the investigations described in this report, a confirmed case of MRSA infection was defined as illness, compatible with staphylococcal disease, in an inmate with laboratory evidence of MRSA from culture of tissue or blood. A possible case of MRSA was defined as an illness, compatible with staphylococcal infection, in an inmate who had an epidemiologic link to a laboratory-confirmed case but did not have cultures performed. A case of MRSA infection was defined as invasive if MRSA was isolated from cultures of a normally sterile site such as blood or cerebrospinal fluid.

Georgia

Since 2001, the Georgia Division of Public Health has assisted the Georgia Department of Corrections (GDC) and local health departments with three investigations of MRSA skin infection outbreaks in three different types of correctional facilities. These investigations are described below.

Investigation 1. During June–September 2001, a total of 11 cases of MRSA skin infections were identified in an all-male, 200-bed, minimum-security state detention center with an average incarceration duration of 90 days. Of the 11 inmates, five had repeated MRSA skin infection occurring after the initial lesion (i.e., recurrent disease). A case-control study identified prolonged (>36 days) incarceration and outdoor work duty as risk factors for MRSA infection. Other possible risk factors included inadequate wound care by medical staff and limited access to soap for hand washing and general bathing (soap was locked in inmate cells away from sinks and showers). In response to this outbreak, the detention center implemented facility-wide screening for skin disease, standardized antimicrobial treatment recommendations, inmate education, and introduction of alcohol-based hand rubs. During December 2001–May 2002, no MRSA cases occurred; however, during June–November 2002, a total of 14 cases were reported. Staff reviewed previous recommendations for hygiene education with inmates and reinforced proper wound care and antimicrobial use. Chlorhexidine-containing soap was provided daily for 3 days among the entire inmate population. During December 2002–April 2003, five cases of MRSA occurred.

Investigation 2. During April–July 2002, a total of 11 cases of MRSA were reported from a 1,500-bed, maximum-security state prison with an average incarceration duration of 591 days. Infections ranged from small furuncles to deeper abscesses; no deaths or bacteremias occurred, and no inmates were hospitalized. A case-control study identified risk factors, including previous antimicrobial use, self-draining of boils, skin laceration (intentional or accidental), washing clothes by hand, sharing soap, and recent arrival at the prison (since 2001). On the basis of these findings, the prison implemented appropriate laundering, improved access to wound care, increased availability and quantity of soap, and began inmate hygiene education. Monitoring of MRSA infections from the beginning of the outbreak in April 2002 until February 2003 identified 73 inmates with infection, 10 of whom had recurrent disease.

During July–August 2002, a total of 23 cases of MRSA occurred in 19 inmates. Interventions were implemented during late July–August; however, six cases of MRSA occurred among inmates during September–October. In response, in February 2003, the prison housed a cohort of MRSA-infected inmates separately and provided a 5-day supply of chlorhexidine-containing soap for personal hygiene. Despite these measures, during March–May 2003, an additional 29 cases of MRSA were reported. GDC and prison staff are working to improve implementation of recommended interventions for preventing additional cases of MRSA among inmates.

Investigation 3. During June–October 2002, a 2,800-bed county jail with an average incarceration duration of 25 days identified 13 cases of skin lesions, initially thought to be spider bites, from which MRSA was isolated. Three inmates were hospitalized for wound care. A retrospective chart review identified 16 cases and 29 possible cases of MRSA skin infections that had occurred during this period. Infections included folliculitis, furunculosis, and abscess. In December, the jail implemented screening for active skin lesions among the inmates, standardized treatment protocols including treatment with non–beta-lactam antibiotics for suspected *S. aureus* infections, hygiene education for inmates, and changes in laundry practices. Through increased use of bacterial cultures to evaluate skin infections, 59 additional MRSA cases were identified during February–April 2003. A review of medical records of 50 patients who received antimicrobials identified 13 (26%) instances in which beta-lactam antimicrobials were used inappropriately for nine (18%) inmates treated before culture

results and for four (8%) inmates treated after results indicated culture-confirmed MRSA.

Los Angeles County, California

The Los Angeles (LA) County jail system, the largest in the country, houses an estimated 20,000 inmates daily and has an average duration of incarceration of 44 days. After an increase in reports of spider bites, the jail developed a protocol in September 2001 that included culture of any lesions suspected to be spider bites. The LA County Department of Health Services (LACDHS) was notified after MRSA was found as the cause of many "spider bite" lesions (*2*). In 2002, a total of 921 MRSA skin infections were identified; 726 (79%) inmates had data available for review. The median time from incarceration to MRSA culture was 45 days (range: 1–1,160 days); 65 (9%) MRSA cases were identified within 5 days after incarceration. During January–June 2003, a total of 776 inmates with MRSA infections were identified (14% identified within 5 days after incarceration), yielding 1,697 cases reported since the jail began surveillance for skin lesions. Investigators observed inadequate infection-control measures in the clinic area; enhanced administrative controls were necessary to ensure frequent showering and appropriate personal hygiene for inmates. LACDHS recommended improvements for skin lesion surveillance, standardized treatment protocols including empiric treatment with non–beta-lactam antimicrobials for all wound infections, hygiene education for inmates, environmental cleaning, and increased frequency of laundry changes. Improvements in antimicrobial treatment of MRSA infections have occurred; however, other recommendations have yet to be implemented fully.

Texas

The Texas Department of Criminal Justice (TDCJ) operates 105 facilities housing 145,000 inmates. In 1996, TDCJ implemented a comprehensive set of treatment and prevention guidelines for MRSA skin infections that included six components: 1) surveillance, 2) hygiene education for inmates, 3) access to proper wound care, 4) standardized antimicrobial therapy based on drug susceptibility data (including directly observed therapy), 5) early treatment of skin disease, and 6) eradication of MRSA from asymptomatic carriers who have recurrent MRSA infections. Since 1998, TDCJ has required culturing of all draining skin lesions and reporting of results to the TDCJ Office of Preventive Medicine. The proportion of *S. aureus* infections that were methicillin-resistant increased from 24% (864 of 3,520) in 1998 to 66% (5,684 of 8,633) in 2002. In December 2000, a case-control study (16 cases and 32 controls) was performed for all cases of MRSA identified during November 2000 at the correctional system's largest intake facility. The study identified previous skin infections and recent close contact with an MRSA-infected inmate as risk factors for infection. Of 10,942 cases of MRSA reported from the beginning of surveillance during January 1996–July 2002, a total of 189 (1.7%) were invasive. The remainder were either unknown site (397 [3.6%]) or skin and soft tissue infections (10,356 [94.6%]). During 1999–2001, three deaths were attributed to MRSA infections. Skin infection screening at the time of incarceration was added to the guidelines in 2003. Implementation of guidelines and a continued multidisciplinary approach to MRSA infections has not led to substantial decreases in the incidence of MRSA. Additional interventions and their effects on infection and carriage are being evaluated, and barriers to efficient implementation of the guidelines are being investigated.

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Editorial Note: The investigations described in this report identified four factors that contributed to spread of MRSA among inmates. First, investigators identified barriers to routine inmate hygiene. Access to soap often was limited or was restricted for security reasons, and new alcohol-based hand rubs were difficult to introduce because of misuse of these products. Mental health and behavior problems among inmates might have contributed to poor adherence and hindered efforts to improve hygiene. Inmates' clothing was washed by hand or in bulk loads, and potentially contaminated laundry might not have undergone sufficiently high water temperatures or drying to eliminate bacteria. Second, proper access to medical care was hindered by co-payments required for acute care visits and by inadequate supplies and staff for wound care. Third, frequent medical staff turnover was a challenge to providing education on proper infection-control procedures. Finally, MRSA might have been an unrecognized cause of skin infections among inmates; wounds often were attributed to spider bites, and cultures might have been collected infrequently even in cases in which antimicrobial treatment failed.

The emergence of MRSA as a cause of inmate skin and soft tissue infections presents a challenge to correctional facilities, health-care providers, and public health agencies. The poten-

tial public health impact of MRSA disease transmission in correctional facilities is substantial; during 2002, approximately 2 million prisoners in the United States were incarcerated at any given time, and one in every 142 U.S. residents was in prison or jail (*5*). Barriers to control of communicable diseases such as viral hepatitis and tuberculosis in correctional facilities are well known (*3,6–8*). Because of these barriers, prisons and jails can serve as amplifiers of MRSA skin disease. In areas where community-associated MRSA appears to be increasing (e.g., LA County), correctional facilities with shorter durations of incarceration might represent settings in which MRSA is imported from the community and exported back to the community via released inmates.

A strategy to improve hygiene and infection-control practices in correctional facilities will likely be the most effective approach for long-term success. Such a strategy should include 1) skin infection screening and monitoring (e.g., maintaining a log of skin infections and visual skin screening on intake), 2) culturing suspect lesions and providing targeted antimicrobial therapy, 3) efforts to improve inmate hygiene (e.g., education about appropriate hand and body hygiene, appropriate laundering techniques, measures to limit use of shared items, and greater availability of soap), and 4) improved access to wound care and trained health-care staff. Adapting traditional hospital-based approaches to preventing MRSA transmission (e.g., placing infected persons in a separate area or eradicating nasal colonization) might not be feasible in most correctional facilities.

Some state public health agencies have developed their own approaches for addressing MRSA in correctional settings. In July 2003, the Federal Bureau of Prisons issued guidelines to prevent and control MRSA in correctional facilities (*4*). Facilities detecting a substantial number of MRSA infections should implement improved hygiene, infection-control, and treatment practices. Correctional facilities experiencing outbreaks of MRSA should seek assistance from their local and state health departments. Preventing MRSA disease in inmates might be an important measure for preventing MRSA in the community outside the correctional facility. Additional information about MRSA is available at http://www.cdc.gov/ncidod/hip/aresist/mrsa.htm

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West Nile Virus Activity — United States, October 9–15, 2003

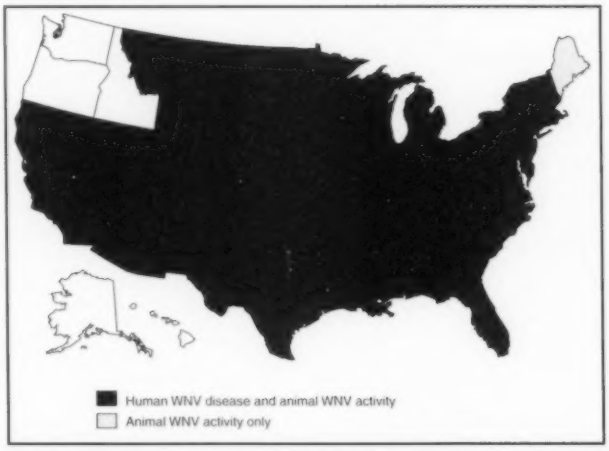
This report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET as of 3 a.m., Mountain Daylight Time, October 15, 2003.

During the reporting week of October 9–15, a total of 450 human cases of WNV infection were reported from 27 states (California, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Montana, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, West Virginia, and Wisconsin), including 13 fatal cases from eight states (Colorado, Georgia, Indiana, Maryland, Michigan, Pennsylvania, Tennessee, and Texas). During the same period, WNV infections were reported in 290 dead birds, 242 mosquito pools, 320 horses, one dog, two squirrels, and three unidentified animal species.

During 2003, a total of 6,957 human cases of WNV infection have been reported from Colorado (n = 2,170), Nebraska (n = 1,108), South Dakota (n = 930), Texas (n = 421), North Dakota (n = 375), Wyoming (n = 320), Montana (n = 214), New Mexico (n = 190), Pennsylvania (n = 183), Minnesota (n = 131), Iowa (n = 128), Louisiana (n = 84), Ohio (n =79), Kansas (n = 76), Mississippi (n = 56), New York (n = 50), Oklahoma (n = 48), Missouri (n = 43), Illinois (n = 39), Florida (n = 32), Indiana (n = 30), Maryland (n = 30), Alabama (n = 29), Georgia (n = 28), North Carolina (n = 21), New Jersey (n = 19), Tennessee (n = 18), Delaware (n = 13), Kentucky (n = 13), Wisconsin (n = 13), Connecticut (n = 12), Massachusetts (n = 12), Virginia (n = 12), Arkansas (n = 11), Michigan (n = four), District of Columbia (n = three), Rhode Island (n = three), New Hampshire (n = two), Arizona (n = one), California (n = one), Nevada (n = one), South Carolina (n = one), Utah (n = one), Vermont (n = one), and West Virginia (n = one) (Figure). Of 6,842 (98%) cases for which demographic data were available, 3,621 (53%) occurred among males; the median age was 47 years (range: 1 month–99 years), and the dates of illness onset ranged from March 28 to October 10. Of the 6,842 cases, 149 fatal cases were reported from Colorado (n = 44), Nebraska (n = 15), Texas (n = 15), South Dakota (n = eight), Wyoming (n = eight), New York (n = six), Pennsylvania (n = six), Georgia (n = four), Iowa (n = four), Minnesota (n = four), New Mexico (n = four), North Dakota (n = four), Alabama (n = three), Maryland (n = three), Ohio (n = three), Indiana (n = two), Michigan (n = two), Missouri (n = two), Montana (n = two), New Jersey (n = two), Delaware (n = one), Illinois (n = one), Kansas (n = one), Kentucky (n = one), Louisiana (n = one), Mississippi (n = one), Tennessee (n = one), and Virginia (n = one). A total of 668 presumptive West Nile viremic blood donors have been reported to ArboNET. Of these, 590 (88%) were reported from the following nine western and midwestern states: Colorado, Kansas, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. Of the 521 donors for whom data were completely reported, six subsequently had meningoencephalitis, and 76 subsequently had West Nile fever.

In addition, 10,172 dead birds with WNV infection have been reported from 42 states, the District of Columbia, and New York City; 3,087 WNV infections in horses have been reported from 38 states, 14 WNV infections in dogs, 12 infections in squirrels, and 23 infections in unidentified ani-

FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2003*



* As of 3 a.m., Mountain Daylight Time, October 15, 2003.

mal species. During 2003, WNV seroconversions have been reported in 861 sentinel chicken flocks from 14 states. Of the 11 seropositive sentinel horses reported, Minnesota reported seven; South Dakota, three; and West Virginia, one. In addition, seropositivity was reported from one other unidentified animal species. A total of 6,421 WNV-positive mosquito pools have been reported from 38 states, the District of Columbia, and New York City.

Additional information about WNV activity is available from CDC at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and http://www.cindi.usga.gov/hazard/event/west_nile/west_nile.html.

Notice to Readers

International Conference on Women and Infectious Diseases

CDC's National Center for Infectious Diseases in collaboration with numerous partners, is planning the International Conference on Women and Infectious Diseases to be held February 27–28, 2004, in Atlanta, Georgia, at the Atlanta Marriott Marquis. The goal of the conference is to enhance prevention and control of infectious diseases among women worldwide. Featured topics include the impact of globalization, women and human immunodeficiency virus/acquired immunodeficiency syndrome, perinatal infectious diseases, vaccinations, and links between infectious and chronic diseases. Other topics include infectious disease disparities, sex-appropriate interventions, effective health communications, and cultural competence in preventing infectious diseases among women. Additional information is available from CDC, telephone 404-371-5312 or 404-371-5311. Information about registration is available at http://www.womenshealthconf.org.

Notice to Readers

CDC Viral Hepatitis Resource Center Offers Free Materials for Health Professionals and the General Public

Viral hepatitis infections represent a major public health burden in the United States. Persons should understand what viral hepatitis is and what prevention measures they can take to prevent viral hepatitis infections. To help health-care providers and the general public receive the most current, accurate, accessible viral hepatitis prevention messages, CDC has created a Viral Hepatitis Resource Center, available at http://www.cdc.gov/hepatitis. The resource center contains educational materials such as brochures, fact sheets, frequently asked questions, slide sets, and posters. All materials are free and can be either downloaded directly or ordered online.

Notice to Readers

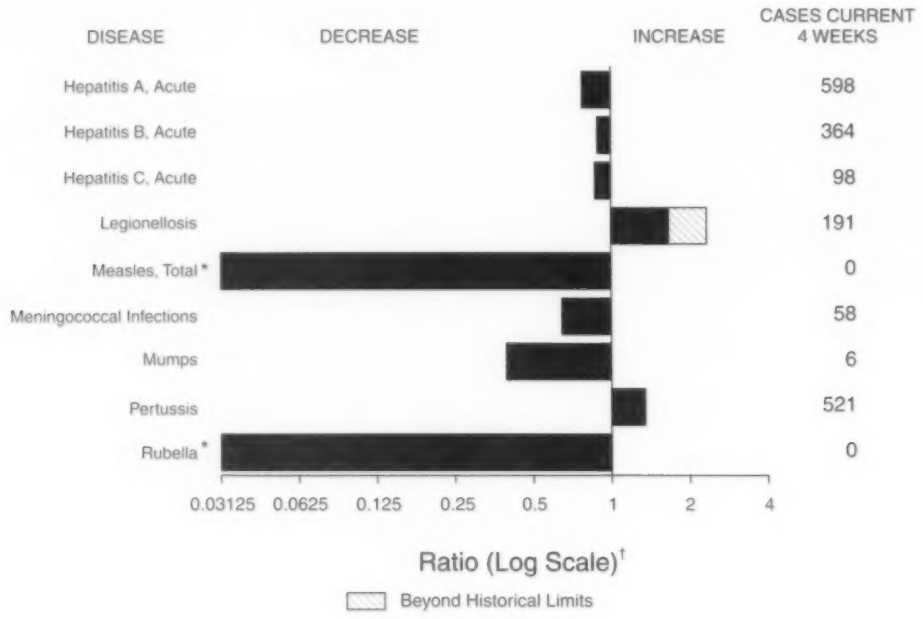
Publication of *Health, United States, 2003 with Chartbook on Trends in the Health of Americans*

CDC has published *Health, United States, 2003 with Chartbook on Trends in the Health of Americans*, the 27th edition of the annual report on the nation's health. This report includes 151 trend tables organized around four broad subject areas: health status and determinants, health-care use, health-care resources, and health-care expenditures. Disparities in health by race/ethnicity and socioeconomic status are presented in several tables.

This year's report includes *Chartbook on Trends in the Health of Americans*. The chartbook assesses the nation's health by presenting trends and information about selected determinants and measures of health status. Determinants of health status include demographic factors, health insurance coverage, health behaviors, and preventive health care; measures of health status focus on trends in mortality and limitations of activity caused by chronic health conditions. Although the overall health of persons in the United States improved substantially during the 20th century, disparities in health and health care among segments of the U.S. population persist. This year's chartbook includes a special focus on diabetes, a leading cause of morbidity and mortality that is consuming an increasing amount of health care resources.

This report is available at http://www.cdc.gov/nchs/hus.htm. Additional information is available from the National Center for Health Statistics, telephone 301-458-4636, or at nchsquery@cdc.gov. Print copies can be purchased from the Government Printing Office, telephone 212-512-1800, or at http://bookstore.gpo.gov/index.html.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals October 11, 2003, with historical data



* No measles or rubella cases were reported for the current 4-week period yielding a ratio for week 41 of zero (0).
† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending October 11, 2003 (41st Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	2	Hansen disease (leprosy)†	45	69
Botulism:	-	-	Hantavirus pulmonary syndrome†	15	15
foodborne	9	24	Hemolytic uremic syndrome, postdiarrheal†	114	164
infant	50	55	HIV infection, pediatric†§	151	126
other (wound & unspecified)	23	14	Measles, total	39¶	26**
Brucellosis†	62	94	Mumps	149	215
Chancroid	37	55	Plague	1	-
Cholera	1	1	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	54	148	Psittacosis†	12	13
Diphtheria	-	1	Q fever†	58	46
Ehrlichiosis:	-	-	Rabies, human	-	3
human granulocytic (HGE)†	249	239	Rubella	7	16
human monocytic (HME)†	136	162	Rubella, congenital	-	1
other and unspecified	30	18	Streptococcal toxic-shock syndrome†	123	93
Encephalitis/Meningitis:	-	-	Tetanus	11	18
California serogroup viral†	60	119	Toxic-shock syndrome	102	85
eastern equine†	7	4	Trichinosis	1	13
Powassan†	-	1	Tularemia†	61	65
St. Louis†	14	17	Yellow fever	-	-
western equine†	1	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update August 24, 2003.
¶ Of 39 cases reported, 31 were indigenous, and eight were imported from another country.
** Of 26 cases reported, 13 were indigenous, and 13 were imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending October 11, 2003, and October 12, 2002 (41st Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	30,269	31,352	638,732	651,918	2,910	3,512	2,391	2,410	1,139	2,179
NEW ENGLAND	989	1,233	21,705	21,572	-	-	133	162	-	27
Maine	49	27	1,486	1,320	N	N	18	10	-	-
N.H.	24	25	1,037	1,239	-	-	11	26	-	-
Vt.	13	12	829	725	-	-	27	28	-	-
Mass.	408	629	9,021	8,544	-	-	51	67	-	18
R.I.	79	82	2,296	2,145	-	-	12	16	-	-
Conn.	416	458	7,036	7,599	N	N	14	15	-	9
MID. ATLANTIC	6,726	7,199	86,356	73,037	-	-	292	317	115	96
Upstate N.Y.	693	537	15,476	13,229	N	N	97	99	-	25
N.Y. City	3,390	4,203	25,337	23,981	-	-	67	123	-	28
N.J.	1,159	1,115	10,306	11,093	-	-	6	15	8	22
Pa.	1,484	1,344	35,237	24,734	N	N	122	80	107	21
E.N. CENTRAL	2,925	3,285	107,436	120,257	7	21	663	823	80	1,242
Ohio	555	658	27,290	29,655	-	-	117	106	80	200
Ind.	378	421	12,715	13,484	N	N	76	37	-	17
Ill.	1,348	1,553	31,608	38,193	-	2	58	107	-	554
Mich.	506	503	23,898	25,509	7	19	106	103	-	422
Wis.	138	150	11,925	13,416	-	-	306	470	-	49
W.N. CENTRAL	563	503	35,991	36,872	1	1	465	336	260	105
Minn.	110	114	7,805	8,228	N	N	125	164	43	16
Iowa	63	63	2,676	4,381	N	N	97	38	39	-
Mo.	266	226	13,790	12,514	-	-	35	34	23	37
N. Dak.	2	1	999	962	N	N	12	10	5	-
S. Dak.	9	4	2,003	1,705	-	-	34	27	38	14
Nebr.¶	39	44	3,269	3,753	1	1	17	48	36	31
Kans.	74	51	5,449	5,329	N	N	145	15	76	7
S. ATLANTIC	8,582	9,260	123,224	122,964	4	3	278	251	111	52
Del.	176	155	2,333	2,101	N	N	4	3	9	-
Md.	994	1,406	13,019	12,720	4	3	18	19	25	20
D.C.	765	453	2,221	2,580	-	-	14	4	-	-
Va.	655	609	12,959	14,056	-	-	37	14	10	-
W. Va.	61	71	2,056	1,924	N	N	4	2	1	1
N.C.	869	761	19,961	19,077	N	N	37	30	-	-
S.C.¶	551	636	12,799	11,789	-	-	3	6	1	1
Ga.	1,369	1,363	26,027	25,496	-	-	83	101	27	20
Fla.	3,142	3,806	31,849	33,221	N	N	78	72	38	10
E.S. CENTRAL	1,306	1,450	41,153	41,729	N	N	98	107	28	256
Ky.	111	252	6,407	7,018	N	N	21	5	11	38
Tenn.	575	602	15,946	12,700	N	N	33	50	7	1
Ala.	308	298	9,696	12,807	-	-	35	45	10	30
Miss.	312	298	9,104	9,204	N	N	9	7	-	187
W.S. CENTRAL	3,128	3,309	78,885	85,995	1	10	51	54	268	400
Ark.	127	191	6,101	5,944	-	-	15	7	13	9
La.	414	808	13,147	15,436	N	N	2	9	43	199
Okla.	154	155	9,306	8,883	N	N	12	14	13	-
Tex.	2,433	2,155	50,331	55,732	1	10	22	24	199	192
MOUNTAIN	1,152	1,029	34,560	40,323	1,959	2,231	114	132	273	1
Mont.	11	9	1,411	1,710	N	N	17	4	206	-
Idaho	17	24	1,928	1,961	N	N	26	26	-	1
Wyo.	6	8	739	725	1	-	4	9	63	-
Colo.	296	211	8,447	11,099	N	N	28	49	-	-
N. Mex.	92	65	5,227	5,952	5	7	10	18	2	-
Ariz.	490	433	10,003	11,875	1,914	2,179	5	11	-	-
Utah	47	52	2,678	2,286	11	11	17	11	1	-
Nev.	193	227	4,127	4,715	28	34	7	4	1	-
PACIFIC	4,898	4,084	109,422	109,169	937	1,245	297	228	4	-
Wash.	311	381	12,997	11,442	N	N	43	28	-	-
Oreg.	184	259	4,996	5,321	-	-	33	35	4	-
Calif.	4,319	3,335	85,699	85,961	937	1,245	220	163	-	-
Alaska	13	22	2,907	2,896	-	-	1	-	-	-
Hawaii	71	87	2,823	3,549	-	-	-	2	-	-
Guam	6	1	-	522	-	-	-	-	-	-
P.R.	787	913	1,475	1,993	N	N	N	N	-	-
V.I.	25	65	142	125	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update August 31, 2003.

¶ Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 11, 2003, and October 12, 2002 (41st Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,882	2,958	195	155	117	35	13,716	16,124	244,131	277,514
NEW ENGLAND	132	225	43	41	12	4	1,005	1,446	5,730	6,069
Maine	10	31	-	7	1	-	136	163	149	109
N.H.	12	29	2	-	-	-	22	34	76	102
Vt.	15	10	-	1	-	-	95	107	65	80
Mass.	51	106	5	18	11	4	476	786	2,395	2,596
R.I.	1	10	-	1	-	-	84	128	761	697
Conn.	43	39	36	14	-	-	192	228	2,284	2,485
MID. ATLANTIC	190	324	13	1	31	7	2,699	3,305	33,125	33,490
Upstate N.Y.	76	140	9	-	16	-	799	941	6,045	6,787
N.Y. City	5	14	-	-	-	-	874	1,193	10,042	10,014
N.J.	14	54	-	-	-	1	268	378	6,031	6,123
Pa.	95	116	4	1	15	6	758	793	11,007	10,566
E.N. CENTRAL	423	723	20	29	19	4	2,256	2,818	48,584	58,358
Ohio	85	130	15	10	18	3	716	716	15,033	16,911
Ind.	75	59	-	1	-	-	-	-	5,007	5,800
Ill.	86	162	-	6	-	-	555	794	14,342	19,200
Mich.	68	118	-	3	-	1	571	746	10,205	11,582
Wis.	109	254	5	9	1	-	414	562	3,997	4,865
W.N. CENTRAL	325	415	33	27	24	4	1,540	1,623	12,651	14,234
Minn.	112	143	18	23	1	-	581	627	2,179	2,513
Iowa	76	103	-	-	-	-	221	253	607	1,027
Mo.	68	56	10	-	1	-	392	386	6,557	7,064
N. Dak.	10	4	-	-	11	-	28	14	45	61
S. Dak.	22	35	4	1	-	-	62	60	170	204
Nebr.	15	48	1	3	-	-	89	132	1,083	1,204
Kans.	22	26	-	-	11	4	167	151	2,010	2,161
S. ATLANTIC	119	235	56	28	8	-	2,123	2,309	61,143	70,724
Del.	6	8	N	N	N	N	38	45	901	1,271
Md.	10	26	-	-	-	-	89	101	6,209	7,147
D.C.	1	-	-	-	-	-	37	33	1,798	2,073
Va.	32	56	8	8	-	-	267	233	6,022	8,399
W. Va.	3	7	-	-	-	-	33	45	689	765
N.C.	4	36	22	-	-	-	N	N	11,510	12,502
S.C.	-	5	-	-	-	-	82	112	7,008	7,488
Ga.	24	39	3	7	-	-	736	740	12,986	14,009
Fla.	39	58	23	13	8	-	841	1,000	14,020	17,070
E.S. CENTRAL	66	92	3	-	6	9	263	306	20,206	24,036
Ky.	23	28	3	-	6	9	N	N	2,847	2,982
Tenn.	27	38	-	-	-	-	127	140	6,644	7,407
Ala.	13	17	-	-	-	-	136	166	6,109	8,212
Miss.	3	9	-	-	-	-	-	-	4,606	5,435
W.S. CENTRAL	67	99	2	1	12	3	231	200	32,725	38,584
Ark.	8	10	-	-	-	-	119	139	3,145	3,727
La.	3	4	-	-	-	-	9	4	8,013	9,516
Okla.	22	19	-	-	-	-	103	55	3,803	3,780
Tex.	34	66	2	1	12	3	-	2	17,764	21,561
MOUNTAIN	245	293	22	22	5	4	1,235	1,295	7,552	8,746
Mont.	12	25	-	-	-	-	84	74	78	76
Idaho	58	40	15	12	-	-	163	99	59	69
Wyo.	2	12	-	2	-	-	20	25	33	51
Colo.	60	88	3	5	5	4	354	423	2,039	2,736
N. Mex.	11	9	3	3	-	-	38	126	860	1,169
Ariz.	25	32	N	N	N	N	202	171	2,765	2,920
Utah	59	62	-	-	-	-	282	256	269	227
Nev.	18	25	1	-	-	-	92	121	1,449	1,498
PACIFIC	315	552	3	6	-	-	2,364	2,822	22,415	23,273
Wash.	86	124	1	-	-	-	255	312	2,176	2,269
Oreg.	85	183	2	6	-	-	320	353	685	676
Calif.	134	205	-	-	-	-	1,656	1,997	18,472	19,301
Alaska	3	6	-	-	-	-	66	87	426	490
Hawaii	7	34	-	-	-	-	67	73	656	537
Guam	N	N	-	-	-	-	-	7	-	38
P.R.	-	1	-	-	-	-	36	72	156	290
V.I.	-	-	-	-	-	-	-	-	36	31
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 11, 2003, and October 12, 2002 (41st Week)*

Reporting area	*Haemophilus influenzae*, invasive†								Hepatitis (viral, acute), by type	
	All ages All serotypes		Age <5 years						A	
			Serotype b		Non-serotype b		Unknown serotype			
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,345	1,312	16	26	73	103	155	121	4,891	7,241
NEW ENGLAND	103	86	1	-	6	8	5	2	246	253
Maine	4	1	-	-	-	-	1	-	9	8
N.H.	11	7	1	-	-	-	-	-	11	11
Vt.	7	7	-	-	-	-	-	-	6	1
Mass.	46	40	-	-	6	4	3	2	144	118
R.I.	6	10	-	-	-	-	1	-	12	30
Conn.	29	21	-	-	-	4	-	-	64	85
MID. ATLANTIC	303	245	-	2	1	14	43	21	939	931
Upstate N.Y.	113	96	-	2	1	4	11	7	106	148
N.Y. City	48	56	-	-	-	-	10	9	335	368
N.J.	54	47	-	-	-	-	7	5	111	155
Pa.	88	46	-	-	-	10	15	-	387	260
E.N. CENTRAL	192	259	4	3	7	9	31	35	510	890
Ohio	59	64	-	-	-	1	11	7	95	248
Ind.	40	36	1	1	4	7	-	-	60	39
Ill.	62	104	-	-	-	-	15	18	153	240
Mich.	20	11	3	2	3	1	2	-	164	188
Wis.	11	44	-	-	-	-	3	10	38	175
W.N. CENTRAL	97	57	1	1	7	2	14	4	152	249
Minn.	37	37	1	1	7	2	2	2	37	37
Iowa	-	1	-	-	-	-	-	-	24	57
Mo.	39	11	-	-	-	-	12	2	53	73
N. Dak.	1	4	-	-	-	-	-	-	-	1
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	2	-	-	-	-	-	-	-	11	16
Kans.	17	3	-	-	-	-	-	-	27	62
S. ATLANTIC	308	295	1	5	12	15	17	23	1,274	1,982
Del.	-	-	-	-	-	-	-	-	5	13
Md.	68	73	-	2	5	3	1	1	126	259
D.C.	-	-	-	-	-	-	-	-	31	65
Va.	40	26	-	-	-	-	5	4	74	110
W. Va.	14	16	-	-	-	1	-	1	14	17
N.C.	36	30	-	-	3	3	2	-	74	190
S.C.	3	12	-	-	-	-	-	2	26	54
Ga.	54	63	-	-	-	-	5	10	568	377
Fla.	93	75	1	3	4	8	4	5	356	897
E.S. CENTRAL	67	58	1	1	1	4	10	10	180	215
Ky.	5	4	-	-	1	1	-	-	28	41
Tenn.	40	29	-	-	-	-	6	7	124	90
Ala.	20	16	1	1	-	3	3	1	14	32
Miss.	2	9	-	-	-	-	1	2	14	52
W.S. CENTRAL	61	48	1	2	7	8	6	2	238	869
Ark.	7	1	-	-	1	-	-	-	16	46
La.	12	6	-	-	-	-	5	2	51	70
Okla.	39	39	-	-	6	8	1	-	13	45
Tex.	3	2	1	2	-	-	-	-	158	708
MOUNTAIN	133	141	4	4	18	25	18	13	372	458
Mont.	-	-	-	-	-	-	-	-	8	13
Idaho	4	2	-	-	-	-	1	1	-	24
Wyo.	1	2	-	-	-	-	-	-	1	3
Colo.	31	26	-	-	-	-	6	2	59	69
N. Mex.	14	22	-	-	4	6	1	1	17	24
Ariz.	64	62	4	2	6	14	8	6	209	245
Utah	11	15	-	1	5	3	2	-	36	40
Nev.	8	12	-	1	3	2	-	3	42	40
PACIFIC	81	123	3	8	14	18	11	11	980	1,394
Wash.	10	3	-	2	6	1	3	-	48	137
Oreg.	37	45	-	-	-	-	3	3	47	52
Calif.	19	41	3	6	8	17	4	4	868	1,173
Alaska	-	1	-	-	-	-	-	1	8	9
Hawaii	15	33	-	-	-	-	1	3	9	23
Guam	-	-	-	-	-	-	-	-	-	1
P.R.	-	1	-	-	-	-	-	-	26	192
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Non-serotype b: nontypeable and type other than b; Unknown serotype: type unknown or not reported. Previously, cases reported without type information were counted as non-serotype b.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 11, 2003, and October 12, 2002 (41st Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	4,798	5,775	1,339	1,473	1,540	908	477	502	13,750	16,913
NEW ENGLAND	191	230	3	18	68	88	36	55	2,375	5,177
Maine	1	8	-	-	2	2	6	5	173	49
N.H.	11	18	-	-	6	4	3	4	95	210
Vt.	2	5	3	12	5	34	-	3	37	31
Mass.	158	122	-	6	26	35	13	31	590	1,700
R.I.	11	24	-	-	13	2	-	1	434	288
Conn.	8	53	U	U	16	11	14	11	1,046	2,899
MID. ATLANTIC	760	1,218	128	88	443	257	95	155	9,265	8,918
Upstate N.Y.	99	94	38	38	127	69	28	50	3,824	3,951
N.Y. City	258	607	-	-	41	54	14	33	5	56
N.J.	181	244	-	4	41	29	12	33	1,551	2,065
Pa.	222	273	90	46	234	105	41	39	3,885	2,846
E.N. CENTRAL	335	530	131	87	304	228	57	65	670	1,165
Ohio	112	71	8	1	184	88	19	18	65	50
Ind.	28	38	7	-	22	16	6	6	18	18
Ill.	1	117	14	18	3	21	7	16	33	46
Mich.	163	261	102	64	82	68	18	17	7	25
Wis.	31	43	-	4	13	35	7	8	547	1,026
W.N. CENTRAL	253	178	187	613	54	46	17	13	307	204
Minn.	29	21	7	2	3	11	9	1	214	120
Iowa	9	15	1	1	9	10	-	1	42	34
Mo.	174	93	178	598	26	13	5	7	40	37
N. Dak.	2	4	-	-	1	-	-	1	-	-
S. Dak.	2	1	-	1	2	2	-	1	1	1
Nebr.	20	23	1	11	4	10	3	1	2	6
Kans.	17	21	-	-	9	-	-	1	8	6
S. ATLANTIC	1,456	1,378	133	161	429	152	105	64	917	1,149
Del.	5	13	-	-	24	7	N	N	149	162
Md.	104	101	14	9	109	32	22	14	517	641
D.C.	9	17	-	-	13	5	-	-	6	20
Va.	141	159	7	9	79	18	8	7	76	129
W. Va.	25	18	1	2	15	-	6	-	17	16
N.C.	132	193	11	22	34	10	16	6	85	103
S.C.	110	101	24	4	5	6	2	8	8	18
Ga.	419	360	3	61	24	14	26	10	12	2
Fla.	511	416	73	54	126	60	25	19	47	58
E.S. CENTRAL	316	295	66	106	81	29	24	14	49	60
Ky.	52	48	11	4	36	11	6	2	11	21
Tenn.	156	110	19	23	29	11	5	8	15	20
Ala.	47	62	6	6	13	7	11	4	5	10
Miss.	61	75	30	73	3	-	2	-	18	9
W.S. CENTRAL	297	773	554	264	40	25	24	27	57	129
Ark.	39	97	3	10	2	-	1	-	-	3
La.	100	108	97	81	1	4	2	2	6	4
Okla.	31	54	2	5	6	3	2	7	-	-
Tex.	127	514	452	168	31	18	19	18	51	122
MOUNTAIN	479	504	42	45	55	36	28	26	17	14
Mont.	13	8	1	-	4	3	2	-	-	-
Idaho	-	6	-	-	3	1	2	2	3	4
Wyo.	27	17	-	5	2	2	-	-	2	1
Colo.	69	63	13	6	12	7	10	6	4	1
N. Mex.	29	140	-	2	2	2	2	2	1	1
Ariz.	233	183	7	4	9	7	9	12	1	2
Utah	49	38	-	4	18	10	-	3	3	4
Nev.	59	49	21	24	5	4	3	1	3	1
PACIFIC	711	669	95	91	66	47	91	83	93	97
Wash.	56	56	14	17	8	3	4	8	3	9
Oreg.	87	110	12	10	N	N	4	9	15	12
Calif.	541	489	66	63	58	43	78	58	72	73
Alaska	9	6	1	-	-	-	-	-	3	3
Hawaii	18	8	2	1	-	1	5	8	N	N
Guam	-	1	-	-	-	-	-	-	-	-
P.R.	41	150	-	-	-	-	-	2	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 11, 2003, and October 12, 2002 (41st Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	849	1,161	1,278	1,460	5,503	6,444	4,624	6,208	637	844
NEW ENGLAND	34	66	60	80	597	590	453	749	-	6
Maine	3	5	6	4	12	12	57	49	-	-
N.H.	4	7	3	11	60	18	13	38	-	-
Vt.	2	4	2	4	60	111	29	85	-	-
Mass.	6	27	37	43	443	409	166	235	-	3
R.I.	2	5	2	5	16	13	52	66	-	3
Conn.	17	18	10	13	6	27	136	276	-	-
MID. ATLANTIC	211	316	145	177	590	368	794	1,023	33	48
Upstate N.Y.	48	36	36	40	348	251	343	579	2	-
N.Y. City	99	204	28	32	-	17	6	10	11	9
N.J.	33	39	19	26	42	-	62	152	10	16
Pa.	31	37	62	79	200	100	383	282	10	23
E.N. CENTRAL	75	142	181	217	474	748	141	151	14	28
Ohio	17	16	50	67	209	350	49	33	8	10
Ind.	2	12	39	29	55	103	24	30	1	3
Ill.	24	60	41	44	-	123	22	31	-	12
Mich.	23	43	34	36	86	46	39	43	5	3
Wis.	9	11	17	41	124	126	7	14	-	-
W.N. CENTRAL	42	55	124	121	329	556	479	393	59	100
Minn.	21	16	25	29	132	264	30	35	1	-
Iowa	5	4	23	19	83	109	93	63	2	3
Mo.	5	14	56	41	68	120	44	45	46	92
N. Dak.	1	1	1	-	4	5	46	32	-	-
S. Dak.	2	2	1	2	3	6	67	77	4	1
Nebr.	-	5	7	23	5	8	58	-	3	4
Kans.	8	13	11	7	34	44	141	141	3	-
S. ATLANTIC	252	278	228	240	496	355	2,092	2,176	390	385
Del.	3	4	8	7	1	2	43	24	1	1
Md.	60	96	24	7	66	56	246	328	95	35
D.C.	13	18	-	-	2	2	-	-	1	-
Va.	32	29	22	37	86	117	427	486	26	29
W. Va.	4	3	5	4	16	30	72	149	5	2
N.C.	20	19	30	29	108	38	647	586	195	232
S.C.	3	7	20	26	90	40	193	113	14	56
Ga.	48	47	29	25	30	24	334	340	44	19
Fla.	69	55	90	105	97	46	130	150	9	11
E.S. CENTRAL	15	18	66	80	119	216	146	201	83	109
Ky.	7	6	16	13	41	85	31	24	1	5
Tenn.	5	3	19	32	57	91	88	108	56	66
Ala.	3	4	15	19	15	31	26	65	12	12
Miss.	-	5	16	16	6	9	1	4	14	26
W.S. CENTRAL	35	65	147	182	463	1,451	191	977	46	151
Ark.	4	2	12	23	30	480	25	3	-	77
La.	4	4	32	37	6	7	-	-	-	-
Okla.	4	8	14	19	14	35	166	102	40	61
Tex.	23	51	89	103	413	929	-	872	6	13
MOUNTAIN	39	41	62	79	774	775	153	276	10	14
Mont.	-	2	4	2	5	5	20	16	1	1
Idaho	1	-	6	3	67	62	15	35	2	-
Wyo.	1	-	2	-	123	10	6	18	2	5
Colo.	19	22	19	23	266	299	38	58	2	2
N. Mex.	1	2	7	4	51	170	5	10	-	1
Ariz.	12	7	15	23	126	109	52	121	1	-
Utah	4	5	1	4	111	76	14	10	2	-
Nev.	1	3	8	20	25	44	3	8	-	5
PACIFIC	146	180	265	284	1,661	1,385	175	262	2	3
Wash.	21	17	24	53	535	369	-	-	-	-
Oreg.	10	9	48	42	386	167	6	14	-	2
Calif.	108	145	180	178	726	817	162	222	2	1
Alaska	1	2	3	4	3	4	7	26	-	-
Hawaii	6	7	10	7	11	28	-	-	-	-
Guam	-	-	-	1	-	2	-	-	-	-
P.R.	1	1	2	6	-	2	62	71	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 11, 2003, and October 12, 2002 (41st Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive: Drug resistant, all ages		*Streptococcus pneumoniae*, invasive: Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	30,569	33,675	16,953	15,643	4,329	3,761	1,688	1,943	337	262
NEW ENGLAND	1,697	1,786	252	272	336	276	40	92	7	2
Maine	105	110	6	5	22	20	-	-	-	-
N.H.	100	114	5	11	21	31	-	-	N	N
Vt.	59	67	7	1	18	9	6	4	4	1
Mass.	1,003	1,017	164	173	162	94	N	N	N	N
R.I.	106	128	14	14	11	15	10	12	3	1
Conn.	324	350	56	68	102	107	24	76	U	U
MID. ATLANTIC	3,544	4,554	1,782	1,390	777	602	100	91	78	63
Upstate N.Y.	912	1,208	345	221	311	243	55	76	60	52
N.Y. City	972	1,143	308	392	103	135	U	U	U	U
N.J.	426	877	228	503	131	130	N	N	N	N
Pa.	1,234	1,326	901	274	232	94	45	15	18	11
E.N. CENTRAL	4,281	4,555	1,403	1,734	913	811	354	177	137	102
Ohio	1,129	1,082	260	514	263	178	231	44	77	10
Ind.	484	446	132	86	95	45	123	131	38	46
Ill.	1,368	1,536	700	841	182	233	-	2	-	-
Mich.	639	737	208	143	311	255	N	N	N	N
Wis.	661	754	103	150	62	100	N	N	22	46
W.N. CENTRAL	2,067	2,091	657	838	284	205	135	376	46	43
Minn.	463	451	88	174	141	103	-	260	40	39
Iowa	312	402	58	102	N	N	N	N	N	N
Mo.	813	692	317	138	62	41	10	5	2	1
N. Dak.	30	24	3	16	13	-	3	1	4	3
S. Dak.	96	94	16	151	19	12	1	1	-	-
Nebr.	115	144	97	179	23	18	-	25	N	N
Kans.	238	284	78	78	26	31	121	84	N	N
S. ATLANTIC	8,238	8,481	5,862	4,994	760	621	867	886	16	28
Del.	75	74	150	172	6	2	1	3	N	N
Md.	684	755	519	907	226	99	-	-	-	21
D.C.	36	62	62	50	12	6	2	-	6	3
Va.	846	926	344	764	92	67	N	N	N	N
W. Va.	107	106	-	9	31	17	57	37	10	4
N.C.	1,020	1,129	825	313	92	110	N	N	U	U
S.C.	607	612	305	96	32	32	123	153	N	N
Ga.	1,543	1,568	1,379	1,220	100	116	201	224	N	N
Fla.	3,320	3,249	2,278	1,463	169	172	483	469	N	N
E.S. CENTRAL	1,970	2,527	694	1,104	171	92	115	115	-	-
Ky.	329	278	105	120	40	19	15	13	N	N
Tenn.	608	628	255	86	131	73	100	102	N	N
Ala.	406	651	198	588	-	-	-	-	N	N
Miss.	627	970	136	310	-	-	-	-	-	-
W.S. CENTRAL	3,000	3,665	3,417	2,412	211	250	53	161	48	20
Ark.	638	823	86	156	5	6	8	6	-	-
La.	420	615	226	383	1	1	45	152	8	6
Okla.	389	409	686	451	72	38	N	N	28	3
Tex.	1,553	1,818	2,419	1,422	133	205	N	N	12	11
MOUNTAIN	1,726	1,779	918	681	373	446	21	45	5	4
Mont.	83	76	2	3	2	-	-	-	-	-
Idaho	145	116	25	12	18	9	N	N	N	N
Wyo.	71	60	6	8	2	7	4	13	-	-
Colo.	397	489	224	145	113	96	-	-	-	-
N. Mex.	203	249	177	147	92	92	17	32	-	-
Ariz.	514	469	390	299	135	214	-	-	N	N
Utah	186	144	41	23	9	28	-	-	5	4
Nev.	127	176	53	44	2	-	-	-	-	-
PACIFIC	4,046	4,237	1,968	2,218	504	458	3	-	-	-
Wash.	426	416	127	129	53	46	-	-	N	N
Oreg.	343	288	189	82	N	N	N	N	N	N
Calif.	3,056	3,262	1,608	1,949	355	353	N	N	N	N
Alaska	57	52	7	5	-	-	-	-	N	N
Hawaii	164	219	37	53	96	59	3	-	-	-
Guam	-	37	-	29	-	-	-	4	-	-
P.R.	183	413	3	28	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 11, 2003, and October 12, 2002 (41st Week)*

Reporting area	Syphilis: Primary & secondary Cum. 2003	Syphilis: Primary & secondary Cum. 2002	Syphilis: Congenital Cum. 2003	Syphilis: Congenital Cum. 2002	Tuberculosis Cum. 2003	Tuberculosis Cum. 2002	Typhoid fever Cum. 2003	Typhoid fever Cum. 2002	Varicella (Chickenpox) Cum. 2003
UNITED STATES	5,205	5,234	292	330	8,722	9,905	242	254	9,693
NEW ENGLAND	156	115	1	-	246	313	22	13	1,339
Maine	7	2	1	-	5	18	-	-	640
N.H.	14	4	-	-	7	10	2	-	-
Vt.	-	1	-	-	7	4	-	-	556
Mass.	103	80	-	-	166	159	11	7	140
R.I.	16	6	-	-	28	42	2	-	3
Conn.	16	22	-	-	33	80	7	6	-
MID. ATLANTIC	650	564	55	51	1,670	1,721	42	68	29
Upstate N.Y.	34	25	16	1	226	246	10	7	N
N.Y. City	358	334	28	22	900	827	16	36	-
N.J.	128	120	11	27	317	394	13	17	-
Pa.	130	85	-	1	227	254	3	8	29
E.N. CENTRAL	691	968	55	48	882	1,013	17	27	4,129
Ohio	170	124	3	3	158	165	2	6	962
Ind.	36	48	7	2	99	95	4	2	-
Ill.	267	381	17	34	424	487	1	11	-
Mich.	207	395	28	9	161	212	10	4	2,572
Wis.	11	20	-	-	40	54	-	4	595
W.N. CENTRAL	107	96	4	2	370	423	4	9	39
Minn.	34	46	-	1	148	180	-	3	N
Iowa	4	2	-	-	17	24	2	-	N
Mo.	39	26	4	1	99	110	1	2	-
N. Dak.	2	-	-	-	-	4	-	-	39
S. Dak.	2	-	-	-	16	10	-	-	-
Nebr.	4	5	-	-	10	22	1	4	-
Kans.	22	17	-	-	80	73	-	-	-
S. ATLANTIC	1,386	1,317	54	74	1,748	2,026	43	32	1,694
Del.	5	10	-	-	-	13	-	-	23
Md.	233	154	9	14	178	225	8	7	-
D.C.	41	47	-	1	-	-	-	-	23
Va.	63	56	1	1	196	216	12	3	470
W. Va.	2	2	-	-	16	27	-	-	999
N.C.	126	228	16	18	243	273	7	1	N
S.C.	81	101	4	9	125	140	-	-	179
Ga.	341	290	6	13	276	414	7	5	-
Fla.	494	429	18	18	714	718	9	16	N
E.S. CENTRAL	248	388	10	24	501	594	4	4	-
Ky.	30	76	1	3	94	104	-	4	N
Tenn.	107	141	3	7	167	230	2	-	N
Ala.	92	133	4	9	173	162	2	-	-
Miss.	19	38	2	5	67	98	-	-	-
W.S. CENTRAL	728	663	53	71	1,221	1,508	22	25	2,006
Ark.	41	30	-	7	71	105	-	-	-
La.	116	120	-	-	-	-	-	-	11
Okla.	51	51	1	2	117	132	1	-	N
Tex.	520	462	52	62	1,033	1,271	21	25	1,995
MOUNTAIN	226	246	21	13	295	315	5	9	457
Mont.	-	-	-	-	5	6	-	-	N
Idaho	8	1	-	-	8	12	-	-	N
Wyo.	-	-	-	-	3	3	-	-	40
Colo.	20	52	3	2	62	69	3	4	-
N. Mex.	40	28	-	-	6	30	-	1	1
Ariz.	146	151	18	11	159	157	2	-	4
Utah	3	5	-	-	30	24	-	2	412
Nev.	9	9	-	-	22	14	-	2	-
PACIFIC	1,013	877	39	47	1,789	1,992	83	67	-
Wash.	61	48	-	1	193	185	3	4	-
Oreg.	32	14	-	-	83	92	4	2	-
Calif.	918	807	39	45	1,414	1,559	75	57	-
Alaska	-	-	-	-	45	39	-	-	-
Hawaii	2	8	-	1	54	117	1	4	-
Guam	-	6	-	-	-	58	-	-	-
P.R.	156	210	1	21	75	86	-	-	288
V.I.	1	1	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending October 11, 2003 (41st Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	405	299	72	18	6	10	46
Boston, Mass.	124	90	21	6	1	6	17
Bridgeport, Conn.	19	14	4	-	1	-	3
Cambridge, Mass.	13	10	3	-	-	-	3
Fall River, Mass.	19	14	4	1	-	-	3
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	21	14	6	1	-	-	1
Lynn, Mass.	5	5	-	-	-	-	2
New Bedford, Mass.	26	20	4	1	-	1	2
New Haven, Conn.	U	U	U	U	U	U	U
Providence, R.I.	54	37	8	6	-	3	4
Somerville, Mass.	3	2	1	-	-	-	-
Springfield, Mass.	38	30	8	-	-	-	3
Waterbury, Conn.	22	15	5	1	1	-	-
Worcester, Mass.	61	48	8	2	3	-	8
MID. ATLANTIC	2,005	1,332	437	163	42	28	109
Albany, N.Y.	60	40	14	4	-	2	-
Allentown, Pa.	20	15	-	3	2	-	-
Buffalo, N.Y.	73	51	17	2	1	2	6
Camden, N.J.	23	11	7	3	2	-	1
Elizabeth, N.J.	22	15	4	1	1	1	1
Erie, Pa.	33	23	8	2	-	-	-
Jersey City, N.J.	44	33	9	2	-	-	-
New York City, N.Y.	1,018	692	221	75	17	12	46
Newark, N.J.	62	19	17	17	6	3	4
Paterson, N.J.	21	14	4	2	1	-	2
Philadelphia, Pa.	208	112	69	19	3	3	6
Pittsburgh, Pa.§	23	15	4	2	1	1	-
Reading, Pa.	34	26	2	4	1	1	4
Rochester, N.Y.	136	105	18	10	2	1	17
Schenectady, N.Y.	25	15	7	1	2	-	2
Scranton, Pa.	30	20	7	3	-	-	-
Syracuse, N.Y.	111	83	15	8	3	2	14
Trenton, N.J.	19	14	3	2	-	-	1
Utica, N.Y.	29	17	9	3	-	-	1
Yonkers, N.Y.	14	12	2	-	-	-	4
E.N. CENTRAL	1,899	1,257	433	127	41	41	121
Akron, Ohio	53	35	15	2	1	-	5
Canton, Ohio	31	26	4	-	-	1	3
Chicago, Ill.	297	167	75	33	10	12	10
Cincinnati, Ohio	83	51	20	5	3	4	9
Cleveland, Ohio	101	61	30	8	1	1	4
Columbus, Ohio	218	152	48	8	7	3	19
Dayton, Ohio	132	92	27	10	1	2	10
Detroit, Mich.	174	96	59	14	2	3	16
Evansville, Ind.	44	34	7	1	1	1	1
Fort Wayne, Ind.	90	63	17	5	2	3	7
Gary, Ind.	31	17	9	1	4	-	1
Grand Rapids, Mich.	63	45	7	8	1	2	7
Indianapolis, Ind.	176	127	33	11	2	3	10
Lansing, Mich.	41	29	9	3	-	-	1
Milwaukee, Wis.	109	70	29	5	3	2	7
Peoria, Ill.	35	27	7	1	-	-	1
Rockford, Ill.	54	39	9	2	3	1	3
South Bend, Ind.	37	29	5	2	-	1	1
Toledo, Ohio	87	65	17	4	-	1	6
Youngstown, Ohio	43	32	6	4	-	1	-
W.N. CENTRAL	494	335	107	28	17	7	25
Des Moines, Iowa	47	35	7	3	2	-	3
Duluth, Minn.	34	23	9	-	1	1	2
Kansas City, Kans.	28	22	3	3	-	-	1
Kansas City, Mo.	99	60	24	10	4	1	-
Lincoln, Nebr.	29	20	7	2	-	-	3
Minneapolis, Minn.	55	33	14	3	3	2	3
Omaha, Nebr.	87	59	21	5	1	1	9
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	46	31	10	1	3	1	3
Wichita, Kans.	69	52	12	1	3	1	1
S. ATLANTIC	1,082	660	242	123	34	23	69
Atlanta, Ga.	139	80	36	14	3	6	7
Baltimore, Md.	146	78	43	20	2	3	9
Charlotte, N.C.	96	59	23	10	1	3	10
Jacksonville, Fla.	118	56	17	31	11	3	5
Miami, Fla.	82	53	17	10	1	1	6
Norfolk, Va.	36	24	8	2	1	1	1
Richmond, Va.	74	38	21	7	6	2	9
Savannah, Ga.	56	36	15	3	2	-	5
St. Petersburg, Fla.	51	36	8	5	1	1	5
Tampa, Fla.	165	123	24	13	2	3	9
Washington, D.C.	102	64	27	7	4	-	-
Wilmington, Del.	17	13	3	1	-	-	3
E.S. CENTRAL	769	508	154	56	21	28	43
Birmingham, Ala.	160	104	34	10	5	5	9
Chattanooga, Tenn.	61	47	7	1	1	5	4
Knoxville, Tenn.	84	57	15	10	2	-	-
Lexington, Ky.	55	37	10	2	2	4	-
Memphis, Tenn.	134	80	35	12	4	3	7
Mobile, Ala.	97	64	21	6	3	3	5
Montgomery, Ala.	33	25	6	2	-	-	3
Nashville, Tenn.	145	94	26	13	4	8	15
W.S. CENTRAL	942	614	210	63	28	26	45
Austin, Tex.	76	45	21	6	3	1	4
Baton Rouge, La.	U	U	U	U	U	U	U
Corpus Christi, Tex.	40	35	5	-	-	-	4
Dallas, Tex.	172	91	49	20	7	5	7
El Paso, Tex.	46	27	13	3	2	1	2
Ft. Worth, Tex.	110	76	21	4	3	6	-
Houston, Tex.	U	U	U	U	U	U	U
Little Rock, Ark.	69	45	16	3	4	1	4
New Orleans, La.	45	19	16	10	-	-	-
San Antonio, Tex.	198	141	34	8	4	10	12
Shreveport, La.	48	35	9	2	1	1	4
Tulsa, Okla.	138	100	26	7	4	1	8
MOUNTAIN	754	507	157	60	18	12	55
Albuquerque, N.M.	114	76	20	15	1	2	8
Boise, Idaho	58	39	14	3	2	-	5
Colo. Springs, Colo.	75	51	22	1	1	-	5
Denver, Colo.	101	52	25	16	4	4	11
Las Vegas, Nev.	213	143	46	13	7	4	9
Ogden, Utah	25	21	2	2	-	-	2
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	26	19	6	1	-	-	3
Salt Lake City, Utah	U	U	U	U	U	U	U
Tucson, Ariz.	142	106	22	9	3	2	12
PACIFIC	1,271	881	224	91	39	36	97
Berkeley, Calif.	22	19	2	-	-	1	4
Fresno, Calif.	122	77	30	12	2	1	5
Glendale, Calif.	22	18	2	1	1	-	-
Honolulu, Hawaii	105	85	10	6	1	3	15
Long Beach, Calif.	70	50	13	5	1	1	9
Los Angeles, Calif.	309	199	58	29	11	12	17
Pasadena, Calif.	19	17	-	1	-	1	-
Portland, Oreg.	U	U	U	U	U	U	U
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	155	106	28	11	6	4	16
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	155	106	31	11	2	5	10
Santa Cruz, Calif.	U	U	U	U	U	U	U
Seattle, Wash.	117	78	19	10	7	3	9
Spokane, Wash.	43	29	9	-	2	3	8
Tacoma, Wash.	132	97	22	5	6	2	4
TOTAL	9,621¶	6,393	2,036	729	246	211	610

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

§ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶ Total includes unknown ages.

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